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Creativity in Theatre

Theory and Action in Theatre/Drama Education

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Creativity in Theatre

Theory and Action in Theatre/Drama Education

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Preface

When Ron Beghetto invited me to submit a proposal on theatre and creativity for the *Creativity Theory and Action in Education* series he is co-editing, I felt both honored and excited. Since I had recently founded the Center for Applied Theatre and Drama Research[1] at the University of Missouri and had started teaching theatre-based creativity courses for non-arts majors, I viewed this opportunity as serendipitous. My goals for the past 40-some years have included lending my voice to the chorus of arts advocacy efforts, particularly through demonstrating how theatre techniques can enhance pedagogy in multiple fields.

I developed a specific interest in using theatre to teach creativity in 1980. In my application for a Kellogg National Fellowship (leadership training and interdisciplinary research), I explained, "I'm not suggesting that theatre can save the world. On the other hand, I'm no longer willing to dismiss the possibility that it could help." My "save the world" but humble romanticism apparently appealed to the fellowship organizers, who accepted me as the first member from an arts discipline in their cohort of fellows. Kellogg's goal for the three-year program was to empower people passionate about making a difference. They showed us how society's evolving overspecialization caused tunnel vision, and then sent us forth with an interdisciplinary network of like-minded reformers to keep an eye on "the big picture." My actual exploration of theatre and creativity got postponed until the twenty-first century, when I joined my voice to an additional chorus, this one calling for the integration of creativity teaching and learning into education. Convinced that theatre techniques can indeed assist in enhancing student creativity, I designed a course in creativity for the non-arts major and recently expanded into teaching an adapted

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[1] In the second edition of *Applied Drama: The Gift of Theatre* (2014), Helen Nicholson points to the rise of "umbrella terms" such as *applied theatre* and *applied drama* in the late twentieth century "as a kind of shorthand to describe forms of dramatic activity that are specifically intended to benefit individuals, communities and societies." She notes that in *Applied Theatre: Creating Transformative Encounters* (2003), theorist/practitioner Philip Taylor defines *applied drama* as "process-based" and *applied theatre* as "performance-based," but she herself sees the terms "often used quite flexibly and interchangeably" (2014, pp. 3-5).

version to bioengineering students (for further description of the journey, see chapter 15, this volume).

Once I accepted Ron's invitation to submit a proposal, I started looking for contributors. To my dismay, I discovered that theatre and drama educators know from experience that performance classes enhance student creativity, thus we have not done much research on the subject. The question of *how* theatre and drama nurture student creativity is rarely analyzed or supported with evidence. Assuming that our work is creative, many theatre departments just include "developing student creativity" in their mission statements. As Kathleen Gallagher points out in her chapter in the *International Handbook of Research in Arts Education*, the topic of creativity is "an under-theorized area in the field of drama education" (2007, p. 1237).

However, creativity is not the only under-researched and under-theorized issue in theatre and drama education. Some time ago, I conducted a literature review on the educational impact of Theatre of the Oppressed for a book chapter, "Learning to Teach with Theatre of the Oppressed," by Peggy Placier et al. (2005). In the process, I came to agree with Adrian Jackson's observation in "Researching Drama and Theatre in Education: Notes and Queries" (1996) that few researchers had investigated the benefits of educational drama until the late twentieth century; I also found discussions of possible reasons for the lack of research in theatre and drama education.

The avoidance of empirical research I encountered may relate to the long-standing tension in academe between the humanities and arts on one hand, and the sciences on the other, as postulated in C. P. Snow's *The Two Cultures* (1959). Arts practitioners and scientists, according to this perspective, have opposing worldviews; artists espouse subjectivity and regard scientists' insistence on objectivity with suspicion. During the three years I served as editor of *Theatre Topics* (from 1993 to 1996), I received only two submissions which featured quantitative research, and the reviewers definitely viewed both with suspicion.

As shrinking educational budgets put further pressure on the arts, some educators resorted to empirical research methods to support their legitimacy. Others insisted that drama is valuable within its own disciplinary field and should not be reduced to a mere pedagogical tool. Still others suggested that the epistemology underpinning qualitative methods, which seek to understand how people give meaning to their experiences, is more compatible with the artistic worldview than empirical methods and can more easily capture the complexity of the theatre experience.

Jackson argues that "There has also been a FEAR OF RESEARCH" on the part of theatre and drama scholars (1996, p. 35). In addition to rejecting positivistic worldviews, theatre scholars may resist demands for "scientific methods" due to the lack of such methods in our training and artistic practice. Until quite recently, research methods in theatrical fields have been drawn solely from the humanities (e.g., history, literary theory and criticism, text analysis). Theatre practitioners shudder when confronted with statistics. With the rise of performance studies, new research methods have started to be accepted in the broader field of theatre and drama.

Another factor is that academe values "traditional" scholarship more than teaching and thus discourages pedagogical research. To address this bias, the Carnegie Foundation for the Advancement of Teaching has been promoting the Scholarship of Teaching and Learning (SoTL). Theatre professors, of course, have been engaged in a long battle to attain academic respect for creative practice as the equivalent of traditional research and may not yet have expanded their efforts to SoTL (For a more detailed analysis of barriers to empirical research in drama and theatre, see Placier et al. 2005).

When I looked to other disciplines for potential contributors, I found problems of a different sort. Outsiders to the field of drama and theatre often assume that performers are (merely) interpreters rather than creators. Even Thalia Goldstein, a developmental psychologist whose research interests include theatre, argues in her co-authored chapter in the *Cambridge Handbook of Creativity Across Domains* (2017) that acting is not a creative practice. Some outsiders, like the Associate Dean of the University of Missouri College of Business to whom I explained my new creativity course, went as far as to insist that "Artists aren't creative. No, no. Musicians—that's all just skill."

The purpose of this volume is to bridge the interdisciplinary abyss between the study of creativity in theatre/drama and in other fields. I searched for and fortunately found authors who could provide provocative chapters from a variety of disciplinary perspectives. Since I anticipate a multidisciplinary readership, I advised some contributors to provide information about their background and relevant research. You will see that some chapters are somewhat formal, while others employ a more personal approach. Gathering and sharing theories, research findings, experiences, and pedagogical practices, I hope this collection will stimulate further discussion among creativity and theatre scholar/educators, as well as more multidisciplinary research.

In my invitation letter, I encouraged contributors to draw from existing empirical and theoretical work but push beyond "what currently is" and comment on future possibilities. I included a list of sample questions that might be addressed:

- In what ways might the work of theatre artists (actors, directors, playwrights, designers, etc.) be considered creative by scholars of creativity? Does the work of theatre artists suggest possible new perspectives on creativity theory?
- Does performative embodiment impact student creativity? If so, how so?
- Do classes in theatre and drama practice enhance students' creativity in theatre arts? Could pedagogical activities that enhance creativity in theatre arts be used to enhance students' creativity in other fields?
- Is it beneficial to apply theories from the literature on creativity to student learning of theatre practice?
- What new insights do neuroscience and cognitive science provide into the teaching and learning of performance creativity? Into the use of drama as a means of learning creativity for other disciplines?
- What is the relationship between active learning pedagogy and theatre pedagogy? Between theatre pedagogy and transformative learning?

- What comparisons can be made between particular acting theories and particular theories of creativity? For instance, is there a relationship between Stanislavsky's *magic if*, the *as if* worlds created onstage, and the *what if* prompts to brainstorming?
- Does applying theatre pedagogy to creativity in other fields devalue theatre's power as social critique and lead to its appropriation for the purposes of neoliberal capitalism?
- Research suggests that experiences in drama education and theatre enhance verbal cognitive abilities. Do these activities also enhance verbal creativity? If so, how and why?
- Can ensemble-building techniques that are used to create a safe space for risk-taking in acting class serve a similar function in environments intended to develop collaborative creative teams?
- How does theatre education allow students to explore alternate identities and create cultural artifacts?
- Does drama education stimulate creative behavior rather than the discovery of original products? Is one of the goals of theatrical practice to create a more collaborative, empathetic culture?

This volume by no means offers definitive answers to the whole list of questions. But once again I feel honored that so many of the significant theorists, researchers, educators, and theatre/drama artists I invited took up my challenge, addressing a number of these questions as well as ideas of their own. I hope that pondering their reflections on the relationship between theatre and creativity will stimulate readers to set off on their own journeys of discovery. Assisting our students to develop into actively creative members of society and of their various disciplines is a goal I fervently believe worth pursuing.

Columbia, MO, USA   Suzanne Burgoyne

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Part I
Are Actors Creative?

Chapter 1
The Actor's Real Role on the Production Team

Tony Noice and Helga Noice

Abstract The primary purpose of this chapter is to show how the actor's job of bringing the scripted events of a drama to vibrant life onstage is necessarily a creative endeavor. A detailed analysis of the acting process will reveal that, from the first reading to the final public performance, an actor must create the "live" aspect of the play in terms of amplifying and communicating the deep meaning he or she finds behind the literal words. This communication is accomplished by the actor's emotional conviction, vocal inflection, body language, and all other channels of communication. The training methods used in higher education, designed to produce this ability, are herein described along with some methodological variations. A secondary purpose of this chapter is to review some theories of creativity offered by a number of prominent researchers and to show how precisely these theories can be applied to the main elements of the acting process.

1.1 Introduction

Creativity is a given in most art forms: the composer creates a symphony, the painter creates a picture, the author creates a novel. However, in theatre, the artists who bring the play to life are often considered to be primarily interpreters. The playwright creates the script; all the other artists (actors, designers, even the director) are there to serve the author's vision. Few professionals would challenge this guiding principle, at least while the author is alive. However, although a play can be read as a piece of literature, it does not serve its true purpose until it becomes a living entity on stage, a process that requires the contributions of multiple creative artists. This chapter will concentrate on one member of the production team: the actor.

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To put this information in perspective, we should sketch in our backgrounds. Helga is a professor of Psychology and cognitive researcher with an extensive record of publication. Tony is a Professor of Theatre, researcher, and professional actor who has appeared in over 100 productions under union (Equity-SAG-AFTRA) contracts. Our joint investigations into the nature and benefits of the acting process have been widely circulated in the cognitive literature. The early stages of these investigations were concerned with actors' memory. By memory, we do not mean memorization, but retrieval and subsequent performance of the entire stored mental representation including thoughts, feelings, elaborations, and speculations acquired during script analysis and rehearsal, which in turn, prompt spontaneous new thoughts and feelings at every performance. We have done a few studies on memorization per se. For example we compared script learning strategies of the famous mnemonist, Harry Lorayne, with the learning strategies of six professional actors. As expected, Lorayne employed the technical mnemonic devices of visualization and association whereas the actors analyzed the deep meaning of the script, concentrating on motivations and relationships (Noice and Noice 1996).

1.2   Application of Actors' Creativity to a Societal Problem

Another strand of our research concerns lowering risk factors for Alzheimer's disease by engaging older adults in a short (four-week) course in acting as a form of mental stimulation. Before and after the course, the participants and controls are tested by administration of up to 13 valid and reliable measures of cognitive and affective functioning that are standard in the field. More than 15 years of such testing (e.g., Noice and Noice 2009, 2013) under strict scientific conditions revealed that the acting group consistently improved on standard measures of creativity, memory, comprehension, problem-solving, and positive affect compared to matched controls. This chapter will outline how our research into the nature and benefits of acting can provide evidence and insight into our proposition that an actor is necessarily a creative artist. In addition, we will look at the burgeoning field of creativity studies and show how the details of actors' processes can frequently be explained by creativity theories.

1.3   Overview of the Chapter

First, we will look at how the very nature of a script forces the actor to engage in a unique creative process. Then we'll explore acting itself and analyze why each aspect necessitates creativity rather than just interpretation. Finally, we'll address how these findings might align with theories proposed by some leading researchers in the field of creativity studies.

We start by comparing a theatrical script with other forms of fictional narrative. For example, in a novel, we might find the following:

> Mike wended his way through the crowd, hoping his desperation wasn't obvious. He needed a drink, fast. Thank God the Reception had an open bar. He was next in line when he was stopped by the sudden appearance of a familiar face.
>
> "Mike Davis, how are you?"
> It was Justin Stern, one of the last people in the world Mike wanted to run into.
> "Oh – I'm fine, Justin. How about you?"
> "Doing just great, thanks."
> He looked like he was doing great. But why not? Mike was well aware that Justin had led a charmed life for the last twenty years.

In this snippet, the author tells the reader about the thoughts, emotions, and motivations of the protagonist in addition to his literal actions and utterances. However, in a play's script, there is no narrative, only dialogue and a few stage directions. For instance, if the above excerpt were written as a play, the entire scene would consist of:

> (MIKE is hurrying toward the bar when a man approaches him)
> JUSTIN: Mike Davis, how are you?
> MIKE: Oh – I'm fine, Justin. How about you?
> JUSTIN: Doing just great, thanks.

Our research has shown that because the playwright is constrained from directly manipulating viewpoint, actors fill in the gaps by imaginatively creating the attitudes, motivations, goals and emotions of the characters (Noice and Noice 2002, 2006). The audience infers these qualities from the actor's body language, facial expression, vocal inflection, and other observable behavioral cues. To accomplish this behavioral specificity, the actor probes both the dialogue and his or her own psyche for clues to the play's deep meaning, a process that can either be intuitive or the result of detailed analysis (e.g., Noice and Noice 1994).

As was just shown, the very nature of the script routinely forces actors to perform the types of tasks that are both *novel* and *useful*, long considered the hallmarks of creativity (e.g., Amabile et al. 1996). The process is novel because it must be created anew (at least in part) for every performance, and useful because it brings that performance to full life on stage, the *sine qua non* for the viewers. However, we believe it goes far beyond that. In order to see the extent of the actor's creativity it is necessary to specify exactly what the acting process is and how professional training and experience promote engagement in creative activity.

1.4   History of Acting Training

There have been many attempts to define the ephemeral art of acting, but they all seem to agree on one central point: acting is *doing* not *pretending—real doing*. The seminal figure in the quest to devise a teachable system of this "reality of doing" was a Russian actor-director, Konstantin Stanislavski, who was dismayed at the

overblown histrionics of much acting in the late nineteenth and early twentieth centuries. However, he noticed that some actors (including the notable Italian star, Tomasso Salvini) were able to create a powerful sense of truth and reality within the prevailing declamatory style of theatrical performance. Stanislavski reasoned that, if he could uncover the difference between a Salvini and the run-of-the-mill actors that populated the world's stages of that era, he could create a grammar of acting that would usher in a new era of truthful role-playing. Stanislavski spent the rest of his life experimenting with various physical/emotional/mental techniques designed to make such truthful performance teachable. (For a complete up-to-date translation of his writings, see Stanislavski 2008.)

News of the Stanislavski System soon spread throughout the English-speaking theatre world, aided by his US tours in 1923-4 and his autobiography, *My Life in Art* (1924). It is foolhardy to try to distill 40 years of investigation into a few paragraphs, but for a chapter of this type, a summary must be attempted. One of the truly seminal concepts behind the system is the notion of the *doable verb*. Stanislavski felt this concept was the key that would allow actors to play truthfully, spontaneously, and without pretense. In application, the actor analyzes the script to determine what the character is actually doing at that moment in order to get what he or she wants under the circumstances given by the playwright. Then the actor boils that knowledge down to a series of active verbs that stimulate the actor to actually *do* something to affect (or at least attempt to affect) the other actor or actors in the scene (e.g., *to threaten, to cajole, to plead with, to embarrass, etc.*).[1]

By becoming completely involved (mentally, physically, and emotionally) in the action of the verb, the actor avoids any need for fakery. Because these actions are subject to the actor's will, he or she can execute them truthfully at any time, thus bringing the onstage event to full life.

Notice that all verbs and verbal phrases we've used as examples can actually be done. This is not true of all verbal phrases. For example, a perfectly plausible analysis of Willie Loman's actions in *Death of a Salesman* would result in the phrase, *to pursue the American Dream* but no actor could get up on stage and perform that pursuit because it is not doable. On the other hand, when Willie is forced by exhaustion to abort his sales trip to New England, he can come home and *confess* to his wife that he can't face road trips anymore and *plead with her for understanding*, then *assure* her that he will request a transfer to an in-town route. Most actors could easily become involved in the actions of *confessing*, *pleading for understanding* and *assuring a loved one.* Of course, the more talented the actor, the more deeply he or she can become involved in such actions and the more exciting and unpredictable the results will be, but acting teachers have found over the years that most students can learn the basic process. That is, that most students can be taught how to sponta-

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[1] The examples given here hold true for realistic theatre in which the actors' intentions match those of the character. For example, in the dining room scene of William Gibson's *The Miracle Worker*, Anne Bancroft's/Annie Sullivan's doable verbal phrase was probably something like '*to force this child to bend to my will.*' Conversely, in a farce or a comedy sketch, a typical doable verbal phrase might be *to delight the audience with this over-exaggerated gesture.*

neously generate behavior that is both novel and useful. One of the best descriptions of this aspect of acting comes from British film star, Michael Caine:

> You must be able to stand there *not* thinking of that line. You take it off the other actor's face... Otherwise, for your next line, you're not listening and not free to respond naturally, to act spontaneously. (Caine 1990, pp. 28–29)

One part of that quote, "You take it off the other actor's face," refers to the widely accepted notion that spontaneous acting requires attending to the other actor's behavior (in this case, facial expression) to glean whether or not you are accomplishing your task (i.e., doable verb). This can change with every performance depending on factors within the actors at that moment. Such thoughts might include, "I don't think she's buying this" or "This may be easier than I thought." Of course, we do not mean that the actors would literally think these specific words. These are fleeting impressions that spontaneously prompt changes in each actor's thoughts and feelings. Therefore these newly hatched thoughts and feelings affect *how* the dialogue is spoken even though the words remain exactly the same at every performance. Similarly, the movements about the stage will remain the same but the *quality* of those movements will vary in accordance with the feelings that arise spontaneously during the interaction.

In sum, if two actors, Dan and John, are playing characters, Joey and Bill, and the script calls for Joey to mock Bill, then Dan actually mocks John. He does not try to look and sound like someone engaged in mocking, he just mocks the other actor *for real.* Audiences have a great fakery meter and can usually sense when the actor is not personally involved but just imitating the shell of the transaction (many actors call this *indicating*). Noted theatrical theorist Robert Cohen offered the following description of truthful engagement onstage:

> …the actor and the character are indistinguishable from each other; they are merged. This is why acting is acting. This is why it engages, not only the consciousness of body and voice, but the entire human organism: the autonomic nervous system, the sweat glands, the emotions, the tear ducts, and the thousands of hidden processes which control intonation, resonance, movement, flickerings, heartbeat and respiration. (Cohen 1978, p. 61)

Such insights help the actor to live in a perpetual *now* on stage but under the constraints imposed by professional theatre. The actor must not only say the exact words of the script at every performance (it's in the playwright's contract), he or she must *mean* them anew at the moment of utterance, acting on whatever impulses are generated by the process. As one very popular acting book put it, "...your task is to act on them [impulses] as they occur to you. In other words, as scary as it sounds*, you must act before you think*" (Bruder et al. 1986, p. 43). This remarkable process is also in keeping with one of the most widely accepted definitions of acting: "Living truthfully under imaginary circumstances" (Meisner and Longwell 1987, p. 15). Obviously, living truthfully entails complete spontaneity including whatever thoughts arise as a result of each transaction. These thoughts will vary from actor to actor and from night to night; if the situation created by the playwright calls for one actor to confront the other, in any one performance, the thoughts accompanying the confrontation might be influenced by factors within the actor who is doing the

confronting or prompted by the second actor's behavioral response, or both. Much of an actor's training is devoted to preparing the ground for such truthful spontaneity to appear. As actress Lois Smith put it: the actor prepares the ground for what comes "unbidden" (Black 1995, p. 67). These unbidden thoughts and feelings necessarily affect the actor/character's onstage behavior, and acting on them without premeditation requires bravery. Indeed, most acting classes devote time and effort to encouraging students to become risk-takers. (Risk-taking has frequently been identified as a component of creative behavior, e.g., Dewett 2007.)

It would appear that the actor's process involves two different phases. The preliminary phase consists of deliberately analyzing the script to discover the verb that best captures the fictitious interaction. Obviously actors' mental processes differ, so the verb might come to one actor in a flash of intuition or to another as a result of hard thinking over a length of time. Of course, the verb must be appropriate to the situation. Take the literal line of dialogue, "Where were you last night?" If the situation created by the playwright concerns two friends one of whom had promised to help the other pack the night before but failed to show up, the verb might be *to blame* or *to accuse* or *to demand an explanation,* depending on how that particular actor feels about the transaction. However, if the situation is such that one actor knows the other had a hot date the night before, the verb for the same line of dialogue might be *to tease* or *to pry* or to *get a rise out of him/her.* There is no one correct verb, just whichever the actor intuitively feels captures the essence of that moment. A caveat is in order here: the goal of the doable verb is to aid in the actor's *reality of doing* (also known as *being in action*). Many very good actors find that simply reading the playwright's text engages them in situation-specific action without employing a technical device such as determining the doable verb. Other actors find their own individual triggers; we know one very busy professional who is frequently cast as a slick, manipulative character. He arrives at the appropriate reality of doing by simply thinking, "ice cream." Nevertheless, generations of acting teachers have found that the technique of determining and executing the doable verb is very helpful to most of their students.

For his followers, Stanislavski offered a tool for finding appropriate verbs. He called it, *the magic if.* To employ this device, actors ask themselves what they would do under *the given circumstances*. (*The given circumstances* are comprised of all the information gleaned from the playwright's script including, time, place, atmosphere, the wants and needs of the characters, etc. Actors are cautioned *not* to misapply *the magic if* and use it as an invitation to play themselves.) A contemporary textbook (widely used in higher education) gives an example of the proper way to employ this tool:

> If I were in the circumstances of the character, and if I wanted what the character wants, and if I allowed myself to do the things the character does to try to satisfy those needs, who would I become? (Benedetti 2015, p. 85)

This device is a much more precisely targeted version of one frequently discussed in the creativity literature in which the students are prompted to ask themselves '*what if?'* in order to trigger imaginative speculation on possible solutions to a given problem.

After determining the appropriate doable verb, the student actor comes to the second stage of this approach, in which he/she becomes fully involved in the execution of the verb. This involvement appears to be another order of creativity; the actor does not have time for analysis but must spontaneously act on the thoughts that arise. In fact, Stanislavski referred to this total involvement in the execution of the verb as *the creative state* or, according to some translators*, the creative state of mind (*e.g., Barton 2009; Gordon 1987. See also Benedetti 2015). On the surface, Stanislavski's notion of this *creative state* seems very much like Mihály Csíkszentmihályi's famous *flow* theory. In his book, *Creativity: Flow and the Psychology of Discovery and Invention* (2006), Csíkszentmihályi lists nine elements of *flow*, all of which, in the opinion of the actor half of this writing team, are indeed involved in the acting process. However, given Csíkszentmihályi's prodigious output, we will leave it to Csíkszentmihályi experts to be the final arbiters of the comparison between the *creative state* and *flow theory*.

It should be noted that many people make the assumption that the actor's process as we have described it is the same as so-called *method acting,* but actually it is simply good acting, whether employed in a contemporary realistic play or a Shakespearean verse tragedy. The style of the production will affect how this truthful interaction is handled but such distinctions are beyond the scope of this chapter.

In brief, we believe that a wide cross-section of actors engage in the foregoing process; that is, they become completely involved in truthfully executing the action of the verb. It must be emphasized that well trained actors avoid faking a response but simply remain open to the stimuli coming from the other actors. Thus the performance bounces back and forth with each actor *working off* the other, a process that can produce not only behavioral changes but genuine and very strong situation-specific emotions. This give-and-take brings the fictional play to vibrant life. We believe this *working off the other* is one obvious aspect of an actor's creativity: experiencing new thoughts and feelings that can change every night because changeability is indeed the nature of all truthful real-life exchanges.

This experiencing of the reality of doing onstage raises a fascinating unanswered question about an actor's mental processes: How is it possible for the brain to tap into its storehouse of a lifetime of experiences, come up with situation-specific thoughts and feelings, and then act upon them truthfully and spontaneously? That question lies at the heart of the theoretical part of our research. We hope scores of future researchers will continue the quest for an answer because the knowledge might provide insight into the elusive nature of speculative human thinking.

Looking at this mysterious process of "living truthfully under imaginary circumstances" from the perspective of a cognitive psychologist, we might find a perceptual explanation. The concept of *embodied cognition* is gaining more and more credence in the scientific community, and we addressed its connection with acting some years ago (e.g., Noice and Noice 2006). According to this view, memory, thought, and language are based on actual perceptual (i.e., motor and sensory) experience. The theory states that

> Knowledge is embodied to the extent that (a) it depends on activity in systems also used for perception, action, and emotion, and (b) reasoning using that knowledge (including combining information from language and action) requires use of those systems. (A. M. Glenberg, personal communication, November 21, 2005)

Let's apply this theory to a possible interaction in a play; one actor/character might stare fixedly at the other, pick up a bottle of scotch, cross the room and say, "This is how I solve my problems." However, the quality of movements and speech will be different depending on the doable verb; is the actor/character planning on greedily drinking from the bottle, hurling it at the other's head, or sending a signal that he or she is through with alcohol by pouring the contents down a sink?[2] These interpretations of the situation would produce different facial expressions, vocal inflections, and body language. Using the vocabulary of Glenberg's version of embodiment theory, these potential actions are called affordances (i.e., they can all be performed with the bottle of scotch), and the meaning of any situation in life or onstage is derived from the meshing of the affordances available in the situation. Obviously the highly specific theatrical concept of the doable verb (as discussed earlier) would be covered by embodiment theory but so would all other human activities and actions.

This aspect of embodied cognition is in keeping with Glenberg's view that comprehension and memory are grounded in bodily action (e.g., Glenberg and Kaschak 2002). Thus, applied to actors, embodiment theory covers remembering dialogue, living truthfully under imaginary circumstances, dwelling on the actor's offstage concerns (such as the never-ending search for the next role), or even deciding what to eat for dinner.

1.5 Application of Acting Exercises to Creativity

A possible contribution of the acting process to the study of creativity is that the techniques of acting that encourage creation of unbidden thoughts and feelings can be learned by most students, at least in rudimentary form, opening up the possibility that teaching acting techniques to non-theatre students might enhance their creativity. Here is one of the acting exercises we've used in our research that repeatedly produced statistically significant increases in our measures of creativity and other cognitive abilities.

After instruction in the core processes of *reality of doing*, *executing doable verbs*, and *achieving spontaneity*, the following *open scene* is handed out to all students.

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[2] At first glance, these actions seem less specific than our earlier examples of the type of "doable verbs" that would be helpful to actors in maintaining their reality of doing onstage. However, as already pointed out, actors differ and we believe that, for many of them, these terms certainly could be considered "doable." For example, *greedily drinking from the bottle* after saying "This is how I solve my problems" could lead an actor to a feeling that he is trying to force the other actor/character to recognize just how insoluble his drinking problem is.

Open Scene Exercise
A: Ready?
B: No.
A: Why not?
B: I'm not sure.
A: Yes, you are.
B: Why are you doing this?
A: It's the best thing.
B: You mean the best thing for you.
A: We agreed about this.
B: You talked me into it.
A: You know that we have no choice.
B: Something might come up.
A: Like what?
B: I don't know.
A: Okay, then let's go.

The students are divided into pairs and each pair is asked to jointly create a plausible situation in which the above dialogue might be used (e.g., two friends are going to a party but one has just learned that his or her ex will be there). Each student is then told to analyze the script and come up with a verb that his or her assigned character (A or B) would use in that situation. The same verb may be used for a number lines of dialogue or the students may change verbs whenever they think a change is appropriate. When all students have accomplished the task, each pair comes up in front of the class. They read the scene aloud slowly, with each student taking as much time as necessary before reading each line to make sure he or she has accessed the doable verb to the point where the actor is mentally, physically, and emotionally involved in the execution of that verb. To aid them in becoming fully involved, the students are told to put all their concentration on *meaning* what they are saying *as* they are saying it. They are told they will eventually learn the exact words and perform the scene with appropriate movements, but for the time being, affecting their acting partner by complete involvement in their doable verbs is their only job. They are also told NOT to deliberately memorize their lines because, with enough rehearsal, the actors will absorb them as a result of genuinely meaning them each time they say them. Obviously, this open scene imposes creative demands on the students both during preparation (choosing plausible situations and doable verbs) and performance (acting on whatever impulses occur). We would hope that such acting exercises would engender creativity in non-acting students and will explore that notion in the next section.

1.6   Empirical Research Findings

As previously mentioned, our 15-year program of experiments investigating the cognitive/affective benefits of a short course in acting has consistently yielded positive results on accepted measures of creativity. However we would be remiss if we didn't point out that these results may be due to a combination of the various elements covered in all instructional sessions and not to one particular exercise such as the above open scene. Overall, the teaching of this four-week, eight-session course involved the rationale of "living truthfully under imaginary circumstances" as described in detail earlier in this chapter. Every exercise emphasized that acting is never pretending. The students were taught to analyze the script to determine what the character was actually doing at that moment and then to do it *for real*.

For example, in one study (Noice and Noice 2009), the experimental group received our acting course, and controls included both a comparison group (a course in singing of equal length) and a no-treatment group. Results showed that the acting group improved significantly over both the comparison group (singing) and the no-treatment controls on almost all test measures, including memory, comprehension, creativity and problem-solving. We have replicated these results under a variety of procedures, including different comparison groups (Noice and Noice 2004), different instructors (Noice and Noice 2013), different types of stimuli (Noice and Noice 2006), and different assessment measures (Noice and Noice 2009).

One of our pre-post measures, category fluency (i.e., word generation) has long been considered an important measure of creativity. Moreover, another measure, the Means-end Problem Solving test (MEPS, Platt and Spivak 1975), would seem very much in keeping with the concepts currently described in the creativity literature. In the latter measure, the participant receives a problem statement and the one sentence solution. The task is to generate a number of imaginative but appropriate steps one would perform to arrive at that solution. For example, if the problem was that a man had lost his watch and the solution was that he found it, a low scoring protocol might simply be "he remembered where he left it" whereas a high scoring protocol might include descriptions of the search of all the different places he could have taken off his watch, the reasons for the great sentimental value of the watch, the people he encountered during the search and their helpful or unhelpful advice on finding it, etc. The MEPS is somewhat similar to the Kaleidoscope creativity test (Sternberg 2012).

Another concept frequently written about by creativity researchers is that of intrinsic vs. extrinsic motivation. We certainly agree that the former promotes creativity, and, in our experience, actors are rarely motivated by extrinsic rewards like fame or money. Actors who are so motivated are in for a great disappointment. Even when they have enough credits and experience to qualify for union status, only a small fraction make a full-time living in professional theatre. Actors Equity Association releases annual employment statistics for live theatre. Such records show that, year after year, only about 15 percent of union members are employed at any one time.

The statistics for the film and television unions are equally dim. Yet actors continue to assault the citadel, while taking care of their everyday needs by working as cab drivers, waiters, or office temps. Intrinsic motivation no doubt enhances their creativity but, sadly, does little for their bottom line.

1.7 Acting and Current Theories of Creativity

Before trying to integrate these two areas of expertise, a definition of creativity seems necessary. Plucker et al. (2004) offered the following: "Creativity is the interaction among aptitude, process, and environment by which an individual or group produces a perceptible product that is both novel and useful as defined within a social context." This very inclusive definition obviously applies to acting as it would to most artistic domains.

A recent book chapter (Beghetto and Kaufman 2016) reviewed current theories of creativity that have been proposed by well known researchers in the field. The authors noted that theories are like containers, convenient ways to sort concepts into categories according to their commonalities. Of course, perfect assignment of theories to categories will never be possible because of individual differences. Nevertheless, such categorization is useful and Beghetto and Kaufman's breakdown seems an excellent way to give some order to this disparity. They sort a number of specific theories of creativity into four categories by concentrating on four theoretical elements: who, how, why, and what. To avoid any misinterpretation during the following discussion, we will quote Beghetto and Kaufman's rationales for assignment to categories:

WHO: "these theories clarify what it takes to be creative as well as the developmental trajectory of creativity,"(p. 36)
HOW: "these theories help clarify the factors and processes that lead to creative outcomes,"(p. 39)
WHY: "these theories help explain the reasons why people engage in creative thinking and action," (p. 40.)
WHAT: "these theories help clarify different types of creativity and what counts as creative in and across different domains," (p. 42).

We will use this same framework to indicate precisely how acting aligns with almost all such theories. Although the Beghetto and Kaufman review article summarizes fourteen theories spread over the four categories, we will use just one from each category for illustrative purposes.

WHO Traditionally, researchers have divided theories of creativity into two categories: little-c (everyday creativity) and Big-C (pre-eminent creativity as exemplified by a Mozart or Picasso). However, Kaufman and Beghetto have expanded this into their own developmental 4-C Model, consisting of mini-c, little-c, Pro-c, and Big-C (Kaufman and Beghtto 2009). Looking at this model through the lens of

acting, we find that the first element (mini-c) applies to initial learning of acting theory in which the actor learns that, although most outsiders think of acting as expert imitation, it is actually the *reality of doing*. The second C (little-c) would take place when the fledging actor starts performing roles, usually in school plays, and starts to experience the (probably fleeting) sensation of truthfully responding to other actors within the fictional situation. In the third stage (Pro-c), the actor would have achieved acceptance in the world of professional theatre, earning his or her living by acting. Finally, in the last stage of development (Big-C) the actor would be widely regarded as one who sets a new standard of performance that fellow professionals would aim for but rarely achieve.

HOW One of the theories the Beghetto and Kaufman review uses as an example of this category is the *Creative Process Model* (Kozbelt et al. 2010; Sawyer 2012; Wallas 1926). The original formulation contained four stages: preparation, incubation, illumination, and verification. Applied to acting, the preparation stage would consist of the actor's learning how to break down the script in order to analyze the character's needs and discover what he or she might do to satisfy them; in the incubation stage, the actor would (consciously or intuitively) generate the doable verbs that produce actions of the character. In the illumination stage, the actor would become deeply involved in these actions during rehearsal (i.e., doing them *for real*). Finally, in the verification stage, the actor would engage in public performance where his or her genuine involvement would encourage empathetic involvement by the audience. It should be emphasized that complete involvement in doable verbs by actors is the ideal toward which they strive; few would claim that they achieve this ideal at every minute of every performance.

WHY In this category of the review, Beghetto and Kaufman include Forgeard and Mecklenburg's (2013) 4-g theory, broken down into growth, gain, guidance and giving. For an actor, *growth* consists of ever-deepening ability to "live truthfully under imaginary circumstances" plus, of course, improving one's auxiliary acting skills such as vocal projection and bodily flexibility. *Gain* consists of increasing status in the profession and the attendant increase in remuneration. *Guidance* is directly involved if the actor is also a director or acting teacher but the main fulfillment of this element is simply in being a very good actor. Indeed, most actors credit their own improvement to the give-and-take involved in working with better actors. The fourth aspect of the 4-g theory, *giving*, is playing the role for the audience's pleasure as evinced in the cliché, "The actor gave a great performance."

WHAT As noted above, this final grouping in the review article is designed to "help clarify different types of creativity and what counts as creative in and across different domains" (Beghetto and Kaufman 2016, p. 42.) As an example, Beghetto and Kaufman cite the Amusement Park theory (Kaufman and Baer 2005), which takes a hierarchical approach and shows the way some experts conceive their specialized areas of inquiry by starting with a broad general view, then narrowing that down with ever-increasing specificity into initial requirements, general thematic

areas, domains, and micro-domains. To illustrate these theoretical elements Kaufman and Baer offer the analogy of an amusement park, starting with the entire Disney World complex in Florida and working down through the various levels of specificity to the individual rides. Applying this concept to theatre, a breakdown could consist of initial requirements (artistic ability); general thematic area (theatre arts); broad categories within that area (performing arts); Domains in that area (dancing, singing, acting), and micro-domains (acting).

Overall, the WHO-HOW-WHY-WHAT breakdown discussed in the Beghetto and Kaufman review is of great theoretical interest, but it offers no examples of how these four categories of creativity theories could be used to encourage creativity itself. However, former and current work from these and other researchers (including our own already cited studies) yields such information (e.g., Beghetto 2017; Sternberg 2012; Pfeiffer et al. 2017). For example, Pfeiffer et al. (2017) administered a validated survey on *self-efficacy in engineering design* to two groups of bioengineering students at the beginning and end of a one-semester capstone bioengineering course. A total of 90 students self-selected into groups of five each, depending on their chosen capstone projects. Three of the groups (15 students) were randomly assigned to the experimental condition; the remainder (75 students) became the control group. The only difference in treatment between groups was that the experimental group received an additional one-hour per week of creativity exercises designed by a theatre professor. Results showed that the experimental group demonstrated a significant increase (more than two-fold) on the self-efficacy survey compared to the control group.

Another procedure for enhancing creativity (Beghetto 2017) involves asking participants to generate examples of such items as CHARACTERS (e.g., teachers, students), SETTINGS (e.g., remote island, abandoned building), CONFLICT (e.g., mistaken identity, attack by monsters) and VIEWPOINT (e.g., first person, third person) and then to *randomly* select elements from each category, combining them into a narrative. The proponents of this teaching device believe it does double duty by giving instruction in both a subject area (writing) and in promoting creativity itself.[3] We feel that these and other approaches from the creativity literature will go a long way towards the enhancement of this important skill, and we hope that we have shown that acting instruction may join them as a candidate for this important endeavor.

To sum up, in this chapter, we have proposed that:

1. The nature of a theatrical script demands that actors create all the additional material that enables them to "live truthfully under imaginary circumstances."

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[3] This excellent pedagogical device was used for a different population almost a century ago. In the 1920s, there were literally over a hundred markets for short stories but they paid so little that writers had to churn out dozens of stories each month to make a bare living. A book called PLOTTO (William Wallace Cook 1924) offered hundreds of lists of protagonists, antagonists, and motives from which writers would randomly pick one from Column A and one from column B, etc. PLOTTO is in print to this day.

2. Actors' experience and training (at least in the dominant Stanislavski-based process taught in most U.S. universities) involve entering the so-called *creative state,* similar to Csíkszentmihályi's *flow theory*.
3. The main elements of the acting process are consistent with theories proposed by some of today's best-known scholars in the area of creativity studies.

We hope this chapter has presented convincing evidence that actors truly deserve the appellation of creative artists.

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Chapter 2
Creative Acting

Check for updates

Robert Barton

Abstract Actors, while their work is to some extent defined by playwrights and directors, can bring significant creativity to any performance context. This essay uses Meryl Streep as a role model through her preparation and work ethic. It offers actors a three-step process, moving from investigation through inference to invention. Approaches to creative performance include nontraditional character analysis with a strong emphasis on the future, exploring behavior modalities, the layering in of conditioning forces, abstract analysis, and a series of exercises to shake up standard rehearsal procedure by taking the character and scene to various brief extremes. These approaches collectively provide ways to welcome creativity without trying to summon it directly, an approach similar to the way the Stanislavski system indirectly beckons emotion by planting the circumstances in which it is most likely to emerge.

2.1 Introduction

To what extent is acting a creative art? Except for improvisation, the words spoken are provided by the playwright and the production concept by the director, so an actor does not start with a blank page and unlimited control. And yet the best actors always bring significant doses of creativity that go beyond the visions of their collaborators. In such instances creativity is layered on creativity.

I have enhanced my understanding of the art through my own experience and through studying the work of other actors. My understanding of the actor's process is based on my thirty years of teaching and the books I have written to help young actors learn that process including *Acting: Onstage and Off* (7th ed., 2016), *Voice: Onstage and Off* (with Rocco Dal Vera, 3rd ed., 2017), *Movement: Onstage and Off* (with Barbara Sellers-Young 2017), *Theatre in Your Life* (with Annie McGregor, 3rd ed., 2015), *Life Themes: An Anthology of Plays for the Theatre* (with Annie

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McGregor, 2nd ed., 2015), *Acting Reframes: Using NLP to Make Better Decisions In and Out of the Theatre* (2011), and *Style for Actors* (2nd ed., 2010).

This essay uses Meryl Streep as a role model through her preparation and work ethic. It offers actors a three-step process, moving from investigation through inference to invention. Approaches to creative performance include nontraditional character analysis with a strong emphasis on the future, exploring behavior modalities, the layering in of conditioning forces, abstract analysis, and a series of exercises to shake up standard rehearsal procedure by taking the character and scene to various brief extremes. These approaches collectively provide ways to welcome creativity without trying to summon it directly, an approach similar to the way the Stanislavski system indirectly beckons emotion by planting the circumstances in which it is most likely to emerge.

No one offers stronger evidence of creativity layered on creativity than Meryl Streep, generally regarded by other actors, critics and audience members as the greatest living actor in the world. In fact, her numerous awards include being chosen as the Benjamin Franklin Creativity Laureate in the Arts. Her work is invariably characterized by inventiveness, imagination, innovation, originality, and inspiration. More specifically, her performances involve complete and frequently unexpected physical, vocal, and psychological lives for each character. Key moments may include a surprising change in mood or tactic, sudden signs of unexpected vulnerability or strength, or a complex layering of conflicting emotions at the same time. It is common for colleagues to comment that she brought far more to the role than they had expected.

Some of Streep's work defies analysis or duplication because geniuses make inductive leaps most actors will miss and thus function on a plane unavailable to the rest of us. However, she has identified a work ethic and process in which her instincts and intuition are backed up by study. She invariably gathers information on which her impulses can build. Numerous interviews and her biography *Her Again: Becoming Meryl Streep* (M. Schulman 2016) reveal a pattern that involves early and extensive research, followed by identifying the implications of the information that has been unearthed by that research, and finally opening up to pure imaginative choice.

I call these three steps *The Three I's*: (1) investigation, (2) inference, (3) invention. This process can be adapted to allow actors access to creativity. Your choices may not be as scintillating as Streep's, but you can develop what she calls her endless curiosity: "I'm sort of in love with what I don't know. I'm in awe of what is not explainable or predictable" (as cited in "Meryl Streep Reveals" 2008, para. 4). The more areas you find to exercise your curiosity, the more open you are to creative choices.

Konstantin Stanislavski, the founder of modern acting theory, taught us that emotion cannot be summoned directly, that it is essential instead to plant conditions in which emotion can emerge, most vividly demonstrated through his Method of Physical Actions. Beckoning creativity is similar. It will resist coming on request, but may rather arrive when certain conditions are planted—and thrive, as fascinating information or possibilities are unearthed.

2.2 The 3 'I's

2.2.1 Investigation

Investigation involves researching the facts about your character, evidence in the script and the world around it. While more specific and detailed questions may be considered, investigation definitely involves:

- Everything said about your character, by the playwright, by other characters and by your character herself
- Social mores of the period in which the play is set, when it was written (if these are not the same), and that in which it will be performed
- The world of the play in terms of predominant influences, beliefs, values, and styles
- The most significant influences that have shaped your character, the dominant given circumstances of her life, and her anticipations for her subsequent life
- The sense of time passing, space occupied, aesthetic preferences, and structure shared by most characters, and the degree to which your character shares or defies the experience and perspective of the majority
- The way all of the above influence the look, sound, and modes of behavior favored within the play, and again how close to or far from these your character exists
- The aspirations of the character, barriers in achieving these, and the various tactics and strategies the character employs to try to succeed.

The initial work is in finding all the facts for which there is clear evidence. Plays offer different amounts of information about the people in them. Some playwrights, such as George Bernard Shaw and Eugene O'Neill, give microscopic character details, down to the titles of books the characters keep on their shelves. Others give your role a name like THE GIRL, minimal dialogue, and leave most for you to discover. Some characters state overtly their purposes in life, while others labor to hide them. So, this initial stage involves unearthing all that exists for certain in and around the play itself.

2.2.2 Inference

Inference amounts to establishing what may be implied or suggested but not overtly stated in the results of investigation. As actor Bryan Cranston wrote, "What you're not given as an actor you must provide" (Cranston 2016, p. 200). From facts, you draw assumptions. If the script never says how old you are, but other characters often call you "child," "boy," and "youngster," you can infer that you are younger than they are and probably the youngest character in the play. If your stage directions are filled with indirect movements and pauses, you infer you are hesitant and nonassertive. While easy to confuse with investigation, inference must be *based* on

facts while moving beyond them. This process is normally quite enjoyable and satisfying as it fills in spaces as yet incomplete and therefore feels essential. It can also offer the actor the courage and confidence needed for the next phase.

2.2.3   Invention

Having completed the first two I's, you now have the right to make things up. Some actors are tempted to skip to this stage without earning their way through the first two. Others neglect it, content with unactable generalizations such as "she's in her forties" or "she's in business." Remember, no real person thinks of herself as *in* her forties or *in* anything, but rather knows precisely where and when. Stanislavski admonishes us that "in general" is the actor's greatest enemy (2008). After inferring an approximate age, you now decide your precise date of birth, the conditions of that birth, and any other crucial events that shaped whom your character has become. So, you also get to make up outrageous circumstances surrounding your birth and childhood, dark and unexpected dimensions in your relationships with other characters, and crucial events that shaped and still influence who your character is. Anything that has not been revealed through investigation and inference is fair game for invention. You are not specifically aiming for surprise or shock, but rather are entirely open to twists and turns of possibility. This progression ensures the actor that the writer's will has been served while leaving the actor free to discover and add.

2.3   The Character's Past, Present and Future

One way of beckoning creativity is to prepare a character analysis that will in some parts virtually require invention. Many analyses limit themselves too completely to the character's history, while there is much to be learned from the character's state *now* and her anticipation of the time to come. Here is a sample analysis that pays equal attention to all three:

Complete the statements from the character's perspective, with a strong need to tell the truth:

1. Character Past

- I come from…
- My childhood was…
- Family conditions were…
- My education has been…
- Experiences making the most lasting impression on me were…

- People who influenced me most were…
- The ten most important given circumstances are…
- The five most powerful members of my private audience would be…
- Crucial actions before each scene were…
- The moment before each of my entrances in complete detail involves…

2. Character Present

- Immediate conditioning forces are…
- Others in the script (and/or playwright) describe me as…
- I describe others as…
- In groups, I tend to…
- I would describe myself as basically…
- My usual style of clothing and type of accessories include…
- My beliefs are…
- My most distinguishing characteristics are …
- My favorite things are …
- My temperament could be described as…
- I am most and least interested in…
- In times of trouble, I would turn to…
- My physical life varies from that of the actor playing me in…
- My clothing/appearance choices could be described as…
- My vocal life varies from that of the actor playing me in…
- The actor playing me needs to use the *Magic If* for this role in…
- Three examples where endowment must be used in the scene are…
- The location of this scene can be described as…
- The most crucial moment of evaluation (including all alternatives considered and rejected) is…
- I make the following discoveries in each scene…

3. Character Future

- My super objective is…
- My intentional hierarchy would include…
- My immediate objective in each scene is to…
- Obstacles I face are…
- My strategy in the scene could be described as…
- Specific tactics I employ are…
- My best possible future would be…
- My worst possible future would be…
- My wildest dreams come true would be…

Answers for completing each of the statements may or may not be in the script. But they should be in the actor's consciousness. With all these responses floating in your psyche, you will be primed for imaginative action.

2.4 Other Ways in: Abstraction, Behavior Modalities, Conditioning Forces

The past, present, and future approach is straightforward and relatively traditional. Here are some alternative paths to character that are less so and which offer chances to open unexpected progress into performance.

2.4.1 Abstraction

Much analysis is systematic and logical, so a useful counterbalance can be achieved by also working in a metaphoric, speculative and fanciful mode. The following questions should be answered by not thinking of what the character would *choose* to wear, drink, or drive, but rather which qualities sum up the character's essence.

This analysis is based on a party game, sometimes called "Abstracts" or "Essences." In the first version, person #1 picks one other in the room, and then everyone poses a question to person #1 until someone guesses who is being abstracted. In the second, one guesser leaves the room while everyone agrees on a person present to be the one regarding whom all will answer. When the guesser returns, she questions each person there until she guesses correctly or gives up.

Ask yourself, if the character were actually one of the following, which would he be?

1. Fabric
2. Animal
3. Beverage
4. Mode of transportation
5. City
6. Tree
7. Color
8. Play
9. Scent
10. Song
11. Type of day
12. Decade or era
13. Film or TV series
14. Landmark or building
15. Snack
16. Mythological or fantasy figure
17. Spice
18. Musical instrument
19. Painting or photo
20. Toy

Abstracting is whimsical, and it works. You may find more inspiration from your abstract self than from more concrete analyses. You enter the scene thinking of yourself as a giant oak and the fifth movement of a Beethoven symphony and a fifth of Jack Daniels. It somehow gives just the bump needed to feel the way the character needs to and gives permission for creative, nonlinear action.

2.4.2 Behavior Modalities

Dipping into the behavioral sciences, specifically Neuro-Linguistic Programming (NLP) often called "software for your brain," reveals three distinct patterns by which we process information. If someone is primarily a visual (V), auditory (A), or kinesthetic (K) learner, it impacts heavily on how they process information and how they communicate with others. VAK is a revealing way to perceive response and behavioral choices.

Visuals like to study using lists and outlines, use words such as *see*, *shows*, *focus*, *perspective*, *looks*, are straight-backed, even when sitting, with raised, tense shoulders, a dropped chin, minimal facial expression, and few gestures. Speech is rapid, breathy, high-pitched, and uninflected. They see the world and communicate in images.

Auditories like to study and run lines with others, favor phrases such as *tell myself*, *rings a bell*, *I hear you*, prefer to sit when talking, touch their own faces, tap out rhythms, and sometimes turn their ears toward others when being spoken to. They truly like to talk, nod often when listening, and sometimes repeat exactly what they have been asked before answering. Their voices are pleasant and their speech varied. They hear their experiences and try to get others to do so.

Kinesthetics (or Kinos) have trouble studying, need to *do* things to take in information, would always build a model rather than write a paper (anything hands on) if they have a choice, use *grasp*, *handle*, *feel*, and other similarly physical verbs. They need space, gesture big and often, prefer to act out experiences and feelings, but slump when sitting. Kinos are highly expressive and emotionally available, but also sometimes lose the thread of a speaker's (or their own) main points, so alternate between energized and distracted. They respond with their bodies and their emotions.

Note that the three descriptions represent people who are extremely likely to be in a particular mode, but most of us (and actors in particular) shift between modes as our experiences vary. As soon as you know your own primary mode for processing information and recognize the tendencies of others, you raise your capacity to connect positively.

A visual actor will wish to highlight his script and return to looking at the words frequently during rehearsal. An auditory actor may wish to record and play back

often. A kinesthetic needs to get into the right shoes and rehearsal garments and start using props and making contact with others at the earliest possible moment. A creative actor will work to access learning modes he does not habitually employ so that he can join any partner.

And simply experimenting with making a character V, A, or K can shake up the work in evocative, productive ways. NLP has the potential to assist the whole acting process:

1. Which modality do you tend to favor? Which do you believe your character does?
2. Try a key monolog in each modality. Then find places where the character may actually shift during the speech for some reason.
3. Find places in the play where your character may change due to an event that shocks or surprises. How does this change in modalities help with major transitions?
4. Focus particularly on the modality least likely to engage your offstage self. Spend extended periods of time in one mode in order to experience and master the unfamiliar.
5. Practice the characteristics of each modality so that you can move fluidly into and out of each of them or layer them. How does your performance alter or evolve as you change modalities?

2.4.3   Conditioning Forces

It helps enliven any performance and bring characters vividly to life to find immediate stimuli based on the physical and psychological conditions that have undeniable (and sometimes overwhelming) influence on behavior. Conditioning forces are instant, kinetic, and sensual. If it is storming outside and you enter the stage cold and wet, your physical state conditions the very first moments of the scene, influencing each decision you make. And the storm outside may be mentioned in the script, but it also may not and may be entirely your own creative invention. Standard ones include:

Temperature/Weather   How hot/cold, wet/dry, constant/changing is it?

Variable Conditions   How does the space vary? For example: a cold palace room with one fireplace, so that proximity changes conditions for characters and may alter for anyone throughout the scene.

Light   How bright or dark, and what kinds of challenges does our character face as a result? Are there pools of light and shadow so that your vision and sense of security vary from space to space?

Comfort Is your character experiencing irritating little aches or pains, discomfort that comes and goes, depending on how you move? Any stiffness? How do your clothes fit? Do you need to go to the bathroom? Is your foot asleep? Are you hungry or thirsty?

Time What is the actual hour of the day? Are you running late? How late? Or do you have time to kill? How long have you been up? How fatigued or energized? How anxious are you to get this over with? How willing to play around and sustain the encounter? What is the relationship between your outer and inner tempos? For example, do you need to accomplish a task quickly but are feeling sluggish inside? Or do you need to move slowly so that you do not mess up a job, but your heart is racing with excitement and tension inside?

Space Familiarity Who owns it? How much right do you have to be here? How well do you know it? How curious are you about it? Who do you know here? Has it changed since your last visit?

Distractions Are there loud noises from the street outside? From the next room? Is there an unpleasant, intriguing, or tantalizing odor in the space? Are your senses diverting you from your objective? Are you terribly curious about something? Terribly aroused by someone? Is any force or activity making it hard to focus your attention?

Mood Do you feel unexpectedly buoyant and optimistic? Do you have a strange foreboding? Are you influenced in this encounter by your last one with this person and your anticipation of what this next meeting will mean?

Actors way too often perform in a neutral space, without any discernible influences. Actors also tend to play only two physical states: vibrantly healthy or dying, instead of all the conditions in between, where we are more likely to be. Consider the effect on the scene if your character had one glass of wine too many last night and, while not truly hung over, has this tiny little irritation at the side of the temple and is just a bit sluggish. Then, there is that silly cut on your little finger where the Band-Aid will not stay on. And the neon light above is a bit glaring, but you do not have the energy to turn it off and a lamp on. But there is a nice breeze coming in the window, relieving the heavy humidity in this room. Our state of well-being is relative, not perfect or terminal. Conditioning forces are especially important as you enter the scene because it is here that they often change (moving from dark movie theatre into glaring sunlight, from a heat wave outside into frigid air conditioning, from space uncertainty to relieved familiarity as your comfort level changes while you grow accustomed to the new environment).

An interesting rehearsal experiment is to gradually add *extreme* conditioning forces into the first beat of each scene. Make the space arctic cold or swelteringly hot and humid, blindingly light or all dark shadows. Make the characters dreadfully late or having had to wait forever. Give yourself an extreme physical condition (a

dreadful cold, the worst hangover of your life, a devastating injury). Manipulate various combinations and then back off to more subtle, nuanced circumstances but those with constant influence. Such layering absolutely negates any tendency to play in a bland, neutral state. It opens up the senses. Even though the exercise choices may be too extreme to retain (and then again, they may not), an intense physical awareness tends to linger.

Most analysis above starts before rehearsals begin. But answers are likely to evolve and change as the experience of speaking the lines and interacting with other actors occurs. Some answers will be more firmly embedded as the evidence you uncover and your experiences in rehearsal support them. Others will alter completely as research and activities stimulate and welcome other possibilities.

Creativity is obviously encouraged by the third element (invention, future, conditioning forces) in each list, but it can readily emerge from the first two elements as well. Many talented artists avoid training and research after having achieved some success, fearing that knowing too much will cause them to lose the gift. They fear that self-conscious awkwardness will replace spontaneous expression. But exploring all the influences suggested here will actually open you up to possibility. You may go through a period of self-consciousness, but you can move forward *through* this phase, knowing it will fade away and allow you creative calm on the other side.

More than a few times, youthful directors and actors have told me they were really interested in shaking up and finding new ways to do classical plays. When I asked how much they knew about the old ways or traditional approaches, the answer was usually "nothing." A huge error. You cannot shake up something you do not know how to shake. You cannot reinvent without understanding the original invention, without knowing enough about what you are undoing to do it. To effectively think outside and beyond the box, you need to know everything in the box. A thorough grounding in choices of the past can free you to make original, bold, complex decisions in the future. The key is not to get caught in tradition, but rather to use it as stimulating launching pad, with decisions being based on knowledge rather than made in a vacuum. Take the satisfaction and confidence from discoveries in analysis and let that same spirit dominate your attitude in rehearsal.

2.5   Shaking it out

A way to infuse creativity into the standard rehearsal pattern of read-throughs, analysis, blocking, scene work, run-throughs to dress rehearsals, is to take your character out of the limitations of the scripted play.

Into the World   Spend time in the world at large as your character, responding in this other context, interacting as him/her, gaining a deeper sense of the character's perspective.

Release Objects Find props or costume pieces that might be particularly stimulating and evocative for the character, creating histories and deep memories, and place them where you can use their stimuli in rehearsal and performance.

First Meeting With a partner, set up all the circumstances of the first time you and another character important to you laid eyes on each other, really discover your partner's character, and leave the stage when you have some idea when you will see this person again.

Crucial Offstage Event Select the single-most influential experience, either before the play begins or away from the script, on your actions. Improvise the event, allowing the full range of *feelings* from the experience.

Character Wake-Up On the morning of the beginning of the play, move from sleep to the character's anticipation of the day ahead, all the details, arming yourself with all the experience and events the character carries onto the stage.

Typical Time With another actor, spend an evening or an afternoon as your characters, doing something they would likely do together, with no agenda beyond staying effortlessly in character.

Character Interview In a group, decide if you are being questioned for a job, deposition, biography, article, grant, or TV show. The group is free to ask you any question, and you must answer at all times from the character's point of view.

Scoreboard Place a blackboard or something comparable somewhere upstage on your set. Play the scene with particular attention to one-upping your partner. When you know you have scored, walk up to the board and give yourself the point. Try to score points for a particularly dynamic line reading or gesture, moving beyond the point inherent in the script itself.

Rally Squad May be combined with above or done separately. Split the cast down the middle with each half a cheering section for each actor. Perform the scene, turning continuously to your squad for encouragement and advice before returning to give your next line. Squads should react to the other side much as you did to opposing teams in high school.

Unrelated Activity As you run lines with a scene partner, pick a way (setting the table? sorting laundry? cleaning the rehearsal hall?) to involve yourselves physically in a shared task, allowing the lines and the activity to influence each other so that neither is independent of the other.

Stop Partner from Leaving Again with a scene partner, imagine that one of you simply wants to leave and not deal with the encounter at all. Using the actual

dialogue, employ any tactic available to keep that partner from going. Reverse positions, and run the scene the other way around.

Spoken Silent Script Actually speak, in a slightly lower volume, your continuous interior monolog in addition to the lines themselves so you are speaking both text and subtext, overlapping with your partner as needed.

Role Reversal Switch parts with your partner, and run the scene, feeling free to use your preferred line readings and character business whenever you wish to do something differently (or wish that your partner would). Note closely when your partner gives a new and interesting twist to anything while in your role.

Passing Start with a simple object, such as a rubber ball or beanbag, and run the scene, passing it to the other person at the very end of each speech. Use the object to punctuate your lines while you have it, and literally pass it to your partner the way the cue is passed (violently, slyly, flirtatiously, outraged, etc.). Let the relationship between the characters centralize in the object.

Animal Abstractions Assume the animal images you have abstracted for your characters, and perform the scene with all the characteristics you can summon, being open to all the non-intellectual, sensory, sensual, sexual, and purely physical realms.

Contact Touch your partner at some point during each of your lines in the scene, using both traditional ways of contact and those that are newly discovered and unconventional. Let your body tell you some way to connect at the same time your words do.

Sight Removed Play the scene sitting back to back, with your partner's arms and yours locked at the elbows and neither of you having any possibility of seeing the other. Communicate everything through your voice and whatever pressure you can manage on the other person's back and your arms where looped.

Counterpoint Decide what your character is not, and play the scene as if she is just that, interpreting each line to convey a meaning opposite to that which seems intended by the text. Look for the potential emergence of occasional extreme contrast within people, which makes them interesting—the touch of villain in the saint and vice versa.

Speed-through Run the show as rapidly as the words and moves will come, keeping all the values present and playing it in the same emotional key as always so that all ingredients are included, only faster. Find places where you can think faster and the lines *do* work that fast because of the urgency of the moment.

Comparisons Have your character appear before the class and speak about the actor (you) who plays her. After the character presents her basic opinions, the audience is free to ask questions about the actor being described.

Each of these activities will potentially allow any performer to breathe, to shake out and to find more possibilities. Surprisingly, stronger line readings, more effective pieces of business, major improvements in blocking, and any number of dynamic moments may emerge from taking the character and the scene "out there," serving the character as it is performed.

Does Meryl Streep do all these activities? Probably not, since both her inherent genius and vast accumulated experience allow her to skip many steps. But it is clear that she embraces sources of surprise, constant examination and experiments, all supported by a need to know, or as she puts it:

> One of the most important keys to acting is curiosity. I am curious to the point of being nosy… What that means is you want to devour lives… All people contain mystery and when you act, you want to plumb that mystery until everything is known to you. (as cited in Hirschberg 2008, para. 18)

Taking time to investigate, infer and invent, examining closely your character's past, present and future, and then adding in abstractions, modality shifts, and immediate conditioning forces fill you to the brim with possibilities and stimuli. Shaking up each scene outside the confines of the text will keep the process open and fresh. Creativity is likely to kick in because there are so many opportunities that have been created for it to feel welcome. You are full of possibility. Or as another widely admired actor, Annette Bening puts it:

> Once you do your homework, build your character's biography, immerse yourself in the period—do all the conscious work—then a moment of ease and effortlessness comes. You are transcendent, you lose your self-consciousness. You are ready to play. All ego concerns go away and you're free! (as cited in Barton 2016, p. 223)

Glossary

Endowment	Using your imagination to project onto people and objects qualities and characteristics of your choosing.
Given Circumstances	The most relevant facts of the character's biography, those which are most likely to influence behavior.
Moment of Evaluation	The point in time when a character has been addressed and is quickly considering the most effective response or indeed whether to respond at all.
Objectives	What the character hopes to achieve or accomplish.
Super Objective	The single most important goal that dominates a character's life.
Objective Hierarchy	The rank ordering of goals from the most important super objective through those for an act or scene down to those moment to moment intentions.

Immediate Objectives	What the character wants for any individual given moment.
Private Audience	The persons whose opinions are so important to the character that they are strongly present in the mind even when they are nowhere near physically.
Upstage	The position onstage the farthest distance from the audience.

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Part II
Activities for Teaching Creativity

Chapter 3
The Improv Paradigm: Three Principles that Spur Creativity in the Classroom

Clayton D. Drinko

Abstract Improvised scenes work when improvisers listen to their scene partners and agree and add onto each other's ideas without judgment. These three principles derived from improvisation—listening, agreeing, and not judging—come together to form the improv paradigm, which can be used to modify pedagogy in order to improve student outcomes. Teachers can introduce activities that specifically target how students listen, agree, and judge each other. The principles of the improv paradigm can also be used to reflect on and improve how teachers teach. Colleagues and supervisors can focus on how teachers consciously or unconsciously listen to their students, agree or disagree with their ideas, and judge students' responses in order to adjust moment-to-moment teacher behavior to create a more creative learning environment. Once improved, these skills lead to more trusting, collaborative, and creative classrooms that foster creative ideation instead of causing students to feel shamed or judged and therefore stop contributing and creating.

3.1 Introduction

As a high school teacher, I often hear the chorus of how I am supposed to be creating the workforce of tomorrow. Today's employers are having a difficult time finding employees who are creative problem solvers and team players (White 2013). The problem is that by the time I meet my high school students on that first day of school, they have written so many five paragraph argumentative essays that they are all but incapable of responding to an open-ended writing prompt. Their creativity is hiding somewhere, but years of rote learning have pushed it far below the surface. This lack of creativity could be why employers are complaining about a lack of qualified candidates. When we as educators forget to foster creativity in our young people, we are overlooking perhaps the most important skill for their futures. Their futures also affecting our own, it is time to integrate strategic and explicit creativity

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instruction into the classroom, whether it is a drama or math class, a rehearsal or sports practice. Improv is one paradigm that can be used to foster just this type of creativity, problem solving, and collaboration.

Improvisation is unscripted performance, but for it to be a useful addition to the classroom it cannot simply stop there. I am advocating the kind of improvisation and improvisation-inspired instruction that stems from Viola Spolin and Keith Johnstone's development of what is now known as short form improv, or impro outside of the United States. I detail a more in depth history of both improv pioneers and connect their theories with those of recent cognitive scientists and psychologists in *Theatrical Improvisation, Consciousness, and Cognition* (Drinko 2013), but a brief parsing of terminology and theories and the establishment of three essential improv principles are important here to create an improv paradigm that can be applied to non-improv classrooms as well.

3.2 Three Improv Principles

Viola Spolin and Keith Johnstone were two pioneering figures in the development of short form improvisation. Spolin's improv comes out of her work with children as part of the Works Progress Administration in the 1930s. Inspired by the work of her teacher Neva Boyd, Spolin's theater games aimed to strengthen children's social and emotional developmental skills. When she collaborated with her son Paul Sills in the 1950s, her games were adapted for adults in a performance context at the Compass and then the Second City theaters. Short form improvisation generally consists of three-to five-minute games based on audience suggestions. These games all have different structures and goals (Veenstra 2009; Leep 2008; Drinko 2013). The most famous examples of short form improvisation are from the television program *Whose Line is it Anyway?* or the live theater franchises Comedysportz and Theatresports.

During this time, Keith Johnstone was concurrently developing his impro with the Royal Court Theater, Theatre Machine, and then Theatresports, moving from London, England to Calgary, Canada (Drinko 2013). Johnstone (2012) was not aware of Spolin's *Improvisation for the Theater* (1983) until 1966 (Drinko 2013) but ended up developing quite similar ways to keep improvisational scenes going. He outlines his own improvisation theories and strategies in his *Impro* (Johnstone 2012). The book is conveniently broken into categories about status, spontaneity, narrative, and masks and trance, but the major impro guidelines match strikingly with what Spolin was also cultivating back in the United States.

Spolin and Johnstone both discovered that for scenes to be engaging, spontaneous, and creative, improvisers had to pay attention to the scene as it unfolded, add onto that scene without rejecting others' contributions, and not judge their own or others' choices. Spolin's methods of improving students' ability to pay attention to the task at hand are most evident in her mirror exercises, activities that have become ubiquitous in acting classes far and wide. Her "mirror series" provides a good

example of the kind of careful observation necessary for improvisation. Three exercises make up the series. In all her many exercises in *Improvisation for the Theater*, Spolin (1983) lists the focus of the exercise, making explicit where students' attention should be placed. In the first of the mirror series, students are to focus on each other. Two students face each other and take turns mirroring the other student's movements (Spolin 1983). Next in the series, two students face each other once again. This time, one student is selected as the leader. The focus of this exercise is to conceal from the audience who that leader is. She writes that adding the pressure of concealing the leader increases the intensity of students' focus while mirroring each other (Spolin 1983). Finally in the series is "Follow the Follower" in which two people mirror each other alternating the leader until, ideally, the two stop leading and start reflecting each other's movements (Spolin 1983). This focus on following instead of leading helps students shift their focus from their own thoughts and initiations ("What should I do next?") to observing their partner carefully and reacting accordingly.

Johnstone helps students develop a similar kind of focus manipulation with his status exercises, something unique to his impro. His theory about status is that people are animals, and all animals fight for dominance over each other. My favorite example of a status struggle is when two people are walking in opposite directions on the sidewalk. When they come right up to each other and do that back and forth, "Who's going to move out of the way?" shuffle, they are struggling for the same high status. Examples of high status behaviors are puffed out chest, direct eye contact, elevated head, and an upright posture. Low status can be seen in fidgety, downward gazing, shoulder slouching, and toes pointing in movements (Johnstone 2012). Just as Spolin's mirror series asks students to focus on their partners, Johnstone's status exercises also help shift improvisers' focus by having students practice paying careful attention to cues and clues about the other's status. In one exercise, students are supposed to adjust their status to match their partner's. The aim is to get as close to the other's status as possible. For example, if one student slumps her shoulders during the exercise, the other might notice that her scene partner is exhibiting a lower status and then adjust her own status accordingly, perhaps by saying "Um" or avoiding eye contact. The purpose of the exercise is for both students to focus on the other's status. Johnstone writes, "This ensures that they really 'see' their partner, as they have exactly to relate their behaviour to his [sic]" (2012, p. 44). They approach it through different exercises, but both Spolin and Johnstone see the importance of having improvisers focus intently on their scene partners instead of their own self-conscious internal monologues. Focusing outwardly in this way has powerful creative benefits that will be explored later in this chapter.

The second takeaway from Spolin and Johnstone's groundwork that has become the most known and sometimes most misunderstood improv guideline is the rule of agreement. Decades after Spolin's and Johnstone's initial improv work, the rule of agreement has become codified and requires a bit of analysis here. In her "Seven Aspects of Spontaneity" in *Improvisation for the Theater*, Spolin (1983) hints at the importance of agreeing with the reality being established in the scene. She writes,

"Group agreement is not permissiveness; it simply keeps everyone playing the same game" (Spolin 1983, p. 45). Johnstone (2012) poetically writes,

> There are people who prefer to say 'Yes,' and there are people who prefer to say 'No.' Those who say 'Yes' are rewarded by the adventures they have, and those who say 'No' are rewarded by the safety they retain. (p. 92)

Spolin and Johnstone are emphasizing the importance of agreeing with other actors' initiations and ideas instead of shutting them down, but agreeing and saying "Yes" are not exactly the same thing.

In improv, the rule of agreement is often conflated with variations of the "Yes, And" exercise. One "Yes, And" exercise that also helps students practice their listening skills begins with two students facing each other. Student A initiates the scene with a statement, maybe about how scary that dog is or how Jamaica is hotter than she anticipated. Then Student B must say the word "Yes" and then repeat what Student A said. For example, Student A might say, "I am allergic to peanuts." Then Student B could continue, "Yes, you are allergic to peanuts," changing pronouns to make the brief exchange make sense. Then Student B continues by saying, "And" and then adding on more information, maybe, "That's why I brought your favorite: almonds." Now it is time for Student A to repeat the pattern by doing what Student B just did. Student A says "Yes," repeats what Student B just added, and then contributes one more line to the scene. Going back to the nut example, Student A could now say, "Yes, that's why you brought my favorite: nuts. And I'm going to eat the whole pack!" The aim of this exercise is simply to say yes to your partner's contribution and then add more information to the scene. The repetition of the other person's statement has the added benefit of ensuring players are listening to each other in the first place.

The rule of agreement exists to help scenes continue to flourish. In the aforementioned example, if Student B had argued that Student A was a liar and that she is not really allergic to peanuts, the scene most likely would have degenerated into a he said/she said argument. Students tend to generate more ideas when previous scene contributions have been acknowledged and embraced. However, as Spolin (1983) states, agreement is not the same thing as permissiveness. All improvisers are meant to contribute, agree, and contribute more. If one person becomes the leader, it tends to squelch the contributions of others.

The rule of agreement does not mean that improvisers always literally say yes. This distinction is often difficult for students. If an improviser is acting shifty and suspicious and says she did not steal your purse, that probably means she did. To agree with the reality of the scene would mean playing along with the idea that your partner did steal the purse and is now trying to lie about it. Therefore, agreement is actually going along with the reality being established in the scene, not necessarily literally saying yes to everything.

Johnstone's idea that students say no to ideas to feel safe makes sense. If a student goes along with her improv partner, neither of them knows what is going to happen as the scene unfolds. After all, it is improvisation. Think back to the aforementioned purse-stealing example. If she goes along with the idea of being a purse

thief, imagine what other sordid details may be revealed later in the scene. On the other hand, if she says that she is not a purse thief, she protects herself from the possible outcomes of that disclosure. She protects herself from the blame and punishment. Unfortunately, negating the reality of the scene also protects the improvisers from having as much fun. Only after agreeing to the reality of being a purse thief can the two improvisers begin exploring their relationship and discovering patterns and games within that shared reality.

Finally, the third key emphasis of the short form improvisation that grew from Spolin and Johnstone's work is the idea of nonjudgment. This means teachers not judging students' contributions, students not judging their own ideas, and students not judging each other's input. Nonjudgment is one of Spolin's main concerns in her writing. It is one of her seven aspects she calls "Approval/Disapproval." She explains that when people are looking for external approval and disapproval, they are no longer able to express what she calls their total personality (Spolin 1983). Johnstone uses his concept of status to teach a similar brand of nonjudgment. Instead of playing the authority on improv, of which he is certainly one, Johnstone explains that he lowers his status with his students to empower them to help him. He plays the bumbling old man or the mistake-maker in order for students to stop feeling the burden of being right or wrong or good or bad (Johnstone 2011, September, 2012; Drinko 2013). In improv, there simply cannot be a good or bad, especially if an outside authority is the one approving and disapproving. This freedom from judgment is also related to the improv rule that supersedes all others: in improv, there are no mistakes. If a student is afraid she is messing up or trying to impress her teacher, she is not focused on her fellow improvisers and the intended goal of the exercise or scene.

3.3   The Improv Paradigm

These three improv principles—listening, agreeing, and not judging—are elements all teachers can gauge in order to assess and enhance the level of creativity in their classrooms. Improv teachers such as Spolin and Johnstone knew decades ago what cognitive science is just now catching onto. There are systematic and strategic methods to enhance creativity. By analyzing the major principles of improv, I hope to create a paradigm that all teachers can use to foster creativity in their own classes as well.

First though, a case should be made for creativity's place in the classroom. Ronald A. Beghetto (2013) describes something he terms creative mortification that gets to the heart of what the improv paradigm can begin to counteract. Creative mortification is "a form of profound creative suppression resulting from a shaming experience" (p. 88). Creativity itself does not die or disappear when someone feels judged or shamed, but the impulse to share or develop creative expression does. Unfortunately, I see creative mortification happening in classrooms all the time. When a student raises her hand and answers a question and another student calls her

stupid, the likelihood that she will keep putting herself out there and raising her hand decreases. When a teacher makes a sour face in response to a student's idea for a project, that student is less likely to stay engaged, and she is certainly less likely to share her ideas in the future. For me, the three principles of improv (listening, agreeing, and not judging) go a long way toward reducing this kind of creative mortification that stifles classroom rapport and productivity.

Beghetto also links creativity with the learning process itself. He writes, "Creativity has long been viewed as a core cognitive capacity that can allow students to take charge of their learning, break from current habits, consider new possibilities, and, thereby, navigate uncertain futures" (Beghetto 2013, p. 33). He invokes the educational theories of Craft, Dewey, Green, and Guilford to reaffirm the crucial role creativity plays in any learning environment. It is crucial for students to be able to ask questions, think of research topics, solve problems collaboratively, and reflect on their own progress to make changes accordingly. These are all creative pursuits. Luckily, Beghetto (2013) and Johnstone (2012) both remind us that creativity can never be killed. It does not go away. It can be stifled, but it can just as easily be nourished and improved, depending on what kind of environment has been established amongst teachers and students.

In my previous research, I connected improvisation and current thinking in the cognitive sciences (Drinko 2013). My conclusion was that improv helps shift the improviser's focus. It helps players move from focusing on internal concerns about themselves to external concerns about others. Simply put, the more players focus on each other and the game being played the less brain space is available for any kind of internal chatter about what the audience might be thinking, how the player is doing, or even what the player should do or say next. After four years of implementing these theories in secondary and postsecondary classrooms, I now see that a focus shift, while integral, is just one part of improv's ability to create more expressive and creative working environments. The shift in focus is key, but telling a student to do so is not the way to create trusting, creative classrooms. Some students can shift their focus on command. However, others require a classroom environment where listening, agreeing, and not judging are promoted and practiced before they are capable of experiencing the shift from internal to external focus. The three principles, listening, agreeing, and not judging, allow more students to feel safe enough to take risks. Once the classroom environment feels more trusting, students can decrease their internal focus, thereby increasing their creative potential. Students need an external focus, but for more initial buy in, they first need to feel safe enough to take social and academic risks. This is where the three principles of the improv paradigm come into play.

First, if classrooms are to be creative spaces, students must listen to each other's ideas. The old model of school communication is for the teacher to ask a question, a student to answer, and then the teacher to tell her if she was right or wrong. Beghetto (2013) invokes H. Mehan's (1979) term for this kind of exchange: initiate, respond, and evaluate or IRE. Beghetto (2013) asserts that IRE becomes a kind of intellectual guessing game for students, where teachers are not truly listening to students and students are only trying to guess the right answers. When teachers are

expecting one specific response, not only are they not listening to the variations in student responses, they are also "in their own heads" as improvisers say. They are distracted with the so-called right answer instead of open to what students are actually saying. IRE is not the kind of give and take rife with creativity, and it is also not a good model for the kind of actual active listening teachers often expect their students to do. It is common for teachers to ask questions and then wait for a student to try to guess the answer they deem correct. However, in order to create truly creative spaces we must challenge ourselves and our students to ignore preconceived notions of right and wrong and listen to what others are actually saying.

The second principle of the improv paradigm is that classrooms should be spaces where students and teachers follow the rule of agreement. This does not mean they always say yes to each other, but it does mean they agree with the reality the other is trying to establish. They must find some value in at least part of what their peers are saying and should refrain from solely negating others' ideas. Listening is a prerequisite for this kind of agreement, and agreement is a symptom of the ideation stage of creativity. Creativity can be separated into two stages: the "generation of novel material" and then the evaluation and revision of that initial material (Liu et al. 2012; Ellamil et al. 2012; Pang 2015). Improv's rule of agreement aims to help generate more novel material for scenes by reducing or eliminating the evaluation of the ideas. Instead of worrying about whether one's scene partner's contribution was funny or interesting, by practicing the rule of agreement, improvisers no longer have to concern themselves with evaluating each other's responses. They get to revel only in ideation.

This kind of generative way of thinking, helped by honing the rule of agreement, results in a shift in the brain as well. In an fMRI study that scanned subjects' brains while they freestyle rapped and then while they rapped memorized lyrics, one preliminary finding is that improvising led to an activation of the medial prefrontal cortex (MPFC) and an inverse deactivation of the dorsolateral prefrontal cortex (DLPFC) (Liu et al. 2012; Drinko 2013). What I find compelling about this cognitive neuroscience finding is that it can serve as a metaphor for the creative process itself. When improvisers are listening and going along with what has come before, their brains are able to shift into a sort of improv mode in which the part of the brain known to process goals and initiate appropriate actions is activated, while the region that is known to monitor those goals and actions consciously is deactivated (Liu et al. 2012). As the scientists of the study explain, "We propose that this dissociated pattern reflects a state in which internally motivated, stimulus-independent behaviors are allowed to unfold in the absence of conscious volitional control" (Liu et al. 2012, p. 5). By focusing intently on agreeing and adding onto scenes, improvisers are able to quiet their own internal judge in order to generate and act on ideas. As improvisers call it, they are able to "get out of their heads." Perhaps it would be more accurate to say, "Get out of their dorsolateral prefrontal cortices."

Another important, and perhaps more obvious rationale for the agreement principle is the concept of emergence. Steven Johnson (2002) describes emergence in great depth in his *Emergence: The Connected Lives of Ants, Brains, Cities, and Software*. Simply put, it is bottom up systems organization, my favorite example

being ants. Ants do not have a leader barking orders from on high. Instead, they simply act and react, and the complex system of their colony is created out of those accumulated individual actions. Improv's Yes, And principle allows scenes to form in a similar manner. No director, playwright, or teacher has to tell the improvisers how to form a scene. It emerges out of the Yes, And behavior. If someone says there is lava, someone else agrees and might say the 'copter will be here soon to rescue us. Then the first person might agree and say what a horrible first date this turned out to be. By Yes, Anding each other, improvisers are freed up to think less with their judgmental dorsolateral prefrontal cortices and let scenes emerge without anyone needing to be in charge.

This Yes, And emergence leads naturally to the third principle in the paradigm, avoiding judgment. Judging one's own ideas or those of other improvisers stifles improvised scenes. It also stifles creativity itself. As Mary DeMichele writes, "Considered a rule of improv, 'Don't judge,' is an outcome of 'Yes, and'" (2015, p. 8). When following the rule of agreement, improvisers' minds are too busy listening, agreeing, and adding to ponder the strengths and weaknesses of their own and others' contributions (DeMichele 2015). DeMichele (2015) also rightfully makes the claim that a decrease in judgment is a result of improvisers gaining confidence from hearing their ideas accepted. It makes sense that hearing one's ideas embraced would lead to more confidence. Think back to Beghetto's creative mortification theory, that students' creativity is inhibited when their ideas are judged. Studies are now beginning to show that improv, because of its "Don't Judge" rule, has the opposite effect. Decreasing the judgment in the room may help people write more (DeMichele 2015), generate more ideas (Pang 2015), and even reduce their anxiety (Phillips Sheesley et al. 2016).

3.4   The Improv Paradigm in Practice

Teachers can utilize the three principles of the improv paradigm in two ways. They can change what they are teaching and they can change how they are teaching. Teachers can enhance the listening, agreeing, and not judging in their classrooms by explicitly incorporating those skills into lessons and they can also examine and reflect on how their own teaching style either stifles or promotes these same skills in their students.

If I want to make it more likely that my students will feel safe enough to take risks and get creative, I incorporate listening, agreeing, and not judging lessons and activities into my curriculum. Sometimes this takes the shape of literal improv games and exercises but not always. I also borrow from theater games and exercises as well as mindfulness curricula, designed to encourage students to use their senses to be more present, to create learning segments that foster the three improv paradigm principles.

There is precedent for weaving improvisation directly into the curriculum. DeMichele (2015) tested ninth and tenth graders' creative writing before and after

the students participated in an improv workshop. She found that her students wrote more after the workshop. More qualitative research needs to be done to corroborate and expand DeMichele's initial findings, but the preliminary insights are encouraging. An introductory improvisation workshop may have allowed students to generate more creative content. Improv encourages students to ideate instead of negate. However, the idea behind the improv paradigm is to target more specifically which principles are taught and when based on the needs of the class. By targeting which of the three principles is focused on at what time, teachers can then make more cohesive and effective curricula and lessons.

Many teachers incorporate improvisation games into their lessons, but the improv paradigm can help teachers strategically focus on specific skills instead of just playing games. It requires more premeditation and planning. For example, at the beginning of every school year I notice the weaknesses in how students listen to both their peers and me. Instead of just playing improv games, I think first about how to teach the skill of listening, knowing that a supportive and creative classroom environment requires it. One way to help students improve their listening is the aforementioned "Yes, And" exercise in which students must repeat their partners' contribution before adding onto the scene. After we practice the "Yes, And" exercise, I can then ask students to use what they have learned about listening during discussions by requiring them to repeat or rephrase whatever the last student said before making their own comments.

For an especially weak group of listeners, I also incorporate mindfulness exercises. The idea is that certain mindfulness exercises help people live more in the present moment and reduce their internal thoughts by having them focus intently on an external sound. In my classes, I have had students listen to a meditation bell until the sound fades completely. Listening to the sound of the bell helps students stop talking or overthinking and simply listen. There are also meditation applications for mobile devices that guide students through various listening meditations. Both the chime and the meditation apps are ways to encourage students to listen. They are ways students can take a break from their normal talking and self-conscious thinking and pay closer attention to sensory details in the here and now. Two readymade mindfulness curricula are *MindUp!* (The Hawn Foundation 2011) and *Happy Teachers Change the World* (Hanh and Weare 2017). Both give teachers detailed lessons to guide students through meditations and improve their listening in the process.

Students may also need help with the rule of agreement in order to create spaces that encourage ideation. Just as with the listening principle, to improve students' agreeing skills I can literally play the "Yes, And" improv game or one of its derivatives. The "Expert" game is also a great way for students to agree and add onto their own ideas. In this game, one student goes to the center of the circle. The class suggests an academic topic, and then the student in the center, the "Expert," must speak convincingly on the topic for a predetermined amount of time. The point is not to be an expert on the topic, but it is also not to say silly things to get the class to laugh. The aim is actually to trick the audience into thinking the expert knows what she is talking about. This requires students to state things confidently even

when they might be completely inaccurate. After introducing this game to the class, I can then refer back to its lessons when we are writing creatively or academically. I can encourage students to keep agreeing with their own ideas and adding more and more details.

Many brainstorming exercises also enforce the same ideational skills as these improv games. Teachers should lay the ground rules firmly by stating that the purpose of any brainstorm is to add ideas and not remove any. I also incorporate creative writing exercises that help students add onto other students' ideas. Story starters are really just written versions of a "Yes, And" exercise. One student, or the teacher, starts writing a story for an established amount of time. Then students rotate or pass the story and continue where the last student left off. In order to add onto the story, students must work with what is already on the page. In other words, they must say yes to the previous ideas. Then they add on appropriately. On the surface, story starters may sound elementary, but certain students require additional practice adding onto even their own ideas in order to create more developed stories, essays, and arguments.

Perhaps even more than the first two principles, not judging takes conscious effort and enforcement in many classrooms. When I first began teaching middle and high school, I was surprised at how quick so many students were not only to disagree with their peers but to do so harshly and often. If our classrooms are ever going to hum with risk taking and creativity, teachers have to address and remedy the stifling effects of judgment.

Just as with the listening and agreeing principles, teachers can introduce students to improv exercises to begin practicing nonjudgment. I facilitate improv games such as the one I call "The Yay Game," and it is one of my all time favorites for remedying the rampant judgments of a harsh crowd. "The Yay Game" is fairly simple to explain yet difficult for many people to play initially. There are many versions of the game, but in Johnstone's (2012), students start by standing in a circle and marching in place as if they are about to go on an imaginary adventure. I find the kinesthetic marching helps students get more involved in the game. After a bit of marching, one student volunteers a first line for a group adventure. It is important that the student start the line with "We," for example, "We are going to Jupiter!" Immediately after that first line, everyone must lift their arms high in the air and yell, "Yay!" Then another student says the next line of the adventure. One goal is for the story to make some kind of sense, but even if it does not, students must always lift their arms high, free of judgment, and cheer, "Yay!"

Understandably, many students have a difficult time cheering for every line during the "Yay Game." Inevitably, one or two students will try to contribute a line that is hard not to judge such as, "We're getting the flu!" or "We are dying in a plane crash!" The teacher should be prepared for these moments by either prefacing the exercise with instructions to avoid unappealing contributions or by using those negative contributions as teachable moments. If improvisers refrain from judgment, even negative lines can become fun stories. After all, after the flu we might get better. "Yay!" And after we die, maybe the next line will be, "We come back as zombies!" or "We get reincarnated as snails!" Students should experience what

happens when players reserve judgment, fully embrace all contributions, and add on without the fear of having their ideas rejected.

Another effective improv game for reducing students' judgment of each other's ideas is what I call the "Ad Game." When I lead this game, I act as the moderator, gathering students' ideas as we go. The premise is that students are the employees at a large advertising firm, and I am the boss. We have been up all night creating a brand new, never before invented product, and I just need a refresher on the details of the invention and the accompanying advertising campaign. I then ask questions such as, "What's the name of the invention?" and "What does it do?" I call on as many students as I can, while asking all about the TV commercial, slogan, and celebrity endorser. The important part of this game is that every time someone answers one of my questions, the rest of the group must clap and celebrate the answer. It is like an extreme kind of group "yes men" mentality. Similar to "The Yay Game," the "Ad Game" requires students to reserve judgment of their peers' contributions. Usually the outcome of the nonjudgment is an entertaining adventure or invention because the culmination of the group's ideas is usually better than what one person could have created alone.

Improv games are not the only way to practice reserving judgment. Certain pedagogical protocols can also be used to practice the same nonjudgment principle. For example, I encourage students to give each other feedback with the pattern "I notice...," "I like…," then "I wonder…" For instance, after a student shares her essay with the class, a peer might follow the protocol by stating, "I notice that you started your essay with a hook. I like how you restated your thesis in the conclusion, but I wonder what would happen if you supported your first main point with more evidence." This protocol encourages students to make observations and find value in their peers' work before they offer any kind of criticism. It also forces students to deliver criticism with a musing instead of a judgment. By stating what they wonder instead of what they hate, students practice tamping down their negative judgments.

In addition to rethinking what to teach, the three principles of the improv paradigm can also be used to evaluate and improve how to teach. I envision the improv paradigm as a supplement to teacher evaluation systems currently in place in most of the U.S. Many states, including New York, rely on the Danielson Framework for Teaching to evaluate pedagogy. Charlotte Danielson developed her Framework by researching common elements of effective teachers. She developed categories that are likely to be found in quality teaching including "Demonstrating Knowledge of Content and Pedagogy" and "Engaging Students in Learning" (Danielson 2011). Teacher evaluation tools such as Danielson's offer ways to measure teacher effectiveness, but they sometimes leave out how teachers can improve in certain domains. How can teachers improve respect and rapport in the classroom? I might be able to recognize when students are engaged by using the Framework, but it may be unclear how the teacher's moment-to-moment interactions with students affect that engagement. By focusing on how teachers listen, respond, and judge students, the improv paradigm can serve as a tool for teachers to analyze and improve how they teach and provide insights into how that teaching style affects the learning environment.

Danielson herself has described problems with the implementation of teacher evaluation systems including her own. She writes:

> I'm deeply troubled by the transformation of teaching from a complex profession requiring nuanced judgment to the performance of certain behaviors that can be ticked off on a checklist. In fact, I (and many others in the academic and policy communities) believe it's time for a major rethinking of how we structure teacher evaluation to ensure that teachers, as professionals, can benefit from numerous opportunities to continually refine their craft. (Danielson 2016, April 8, para. 6)

The principles of the improv paradigm offer exactly that, an opportunity for teachers to refine their own craft by focusing on teacher behaviors that create more trusting and creative classrooms.

In my early experiments using the improv paradigm as a teacher evaluation tool, I have created simple templates divided into three columns: listening, agreeing, and judging. I take careful notes while I watch a teacher in action. In the listening column, I write anything I notice about how the teacher listens to her students. I might write about how the teacher repeats a student response incorrectly or how she does not respond to a student's demand to use the hall pass. In the agreeing column, I write down moments when the teacher goes along with students' ideas and when she does not. Maybe a student asks if she can write about her pet, and the teacher simply says no. Perhaps another student says it is hot in the room, and the teacher counters that she thinks it is quite cold. Just as with improv's rule of agreement, the teacher does not always have to say yes to everything. That would lead to chaos. My notes are only observations to discuss after class with the teacher.

Finally, the judgment column is where I record any time the teacher seems to be the judge of right or wrong and good or bad. This column tends to be packed with notes because teaching without judging ideas can be difficult. For example, I observed a nurturing, kindhearted special education teacher facilitating a class discussion. The desks were arranged neatly in a circle and the teacher sat amongst her students. They discussed a novel they had just finished reading. I noticed all the students participating, but then I saw that some students would only talk if the teacher smiled or nodded her head. I also observed that one boy would begin an answer, notice the teacher was not smiling, and then either stop midsentence or change the direction of what he was saying.

After observing a class, I speak with the teacher about what I noticed about her listening, agreeing, and judging. So far, teachers have been surprised at all the ways they accidentally inhibit their students. The aforementioned special education teacher had no idea she was guiding student answers with her facial expressions. These subtle exchanges matter a great deal in the classroom. A scowl can make a student give up. A "no" could stop her creativity in its tracks. Teaching requires an environment of trust and respect because learning requires teachers and students to take risks. The improv paradigm allows teachers to focus on three principles in order to make subtle adjustments to how they listen, agree, and judge. These adjustments can then enhance the trust and creativity in the classroom.

3.5   Conclusion

Improv provides a shortcut and a model for creating classrooms where students feel seen, heard, respected, and trusted enough to get creative. Much has been written about how to play certain improv games, but my hope is that more research is done on why specific games should be played to encourage specific results. If the improv paradigm is to be useful, teachers must resist the impulse just to play games and instead truly reflect on the areas of growth needed by their specific students. Only then can they decide if their students need to practice listening, agreeing, or not judging and then choose improv exercises, or other tools and techniques, as strategic interventions. They can also use the paradigm to reflect on and improve their own listening, agreeing, and judging in the classroom.

The beauty of the improv paradigm is that the teacher can continue to monitor progress in listening, agreeing, and not judging in order to continue to refine those skills. It is an ongoing process that takes improvisers a lifetime to hone. However, if we want our students to feel open enough to express their thoughts and feelings, we must begin focusing on these skills. Imagine the pay off. In twenty years, we would live in a world of young adults who listen and consider what others say. We would live in a kinder world where young people's first reaction was to find common ground instead of fighting. Then they would truly have something to teach all of us.

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Chapter 4
Dreamwork for Dramatic Writing: An Organic Approach to Magic and Theatricality

David A. Crespy

Abstract In this chapter, David Crespy shares his dreamwork for dramatic writing workshop that he has taught through such venues as the Association for Theatre in Higher Education, the Mid-America Theatre Conference, the International Association for the Study of Dreams, Hollins University PlayLab, and the Kennedy Center American College Theatre Festival. The work here focuses on dramatic writing, but the notion of the dream cache is useful to any storyteller looking for a creative method to innovate their story technique. Using the lens of phenomenology, and techniques suggested by performance theorist Bert O. States, Crespy attempts to "unmask" the way dreams and fiction interact for the playwright or screenwriter. Dreams offer an unlimited supply of ideas, form, technique, and structure for writers who are trying to surprise themselves out of clichés received from the echo chamber of Broadway and Hollywood. This form of dreamwork is about transforming as a storyteller and changing one's ideas about what makes an adventurous tale.

4.1   Introduction to Dreamwork

In this essay, you will learn how to use dreamwork to write dramatically. For storytellers who don't write plays for screen or stage, imagine that you see your story world through the eyes of a playwright, at least temporarily. This perspective will help you imagine your story in three dimensions—the physical action you see before you, the dialogue that you hear, and what you can infer from subtext (the desire flowing under the language). In dramatic action, what you see and hear is what you get, and that's not much different from dreams. So imagine, just for now, that you are a playwright writing your story for the stage.

This chapter will be divided into two sections: a) the theory and reasoning behind using dreamwork, and b) a practical workshop on dreamwork for dramatic writing, with steps and exercises. You might feel tempted to jump right into the exercises.

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However, if you start with the theory, you'll have a better understanding of what you're about to do.

Dreamwork is different than dream interpretation or analysis. In dreamwork no authority figure claims to know the meanings of your dreams. Instead, the more flexible notion of dreamwork suggests that a dream is the unique mental fiction of a human being in constant flux, reacting to the physiology of sleep: the dream has meaning only in so far as the dreamer thinks it does. So set aside Freud and Jung for a moment (we'll get back to them shortly), and consider that one dream can mean many things to many different people. In fact, your dream may mean different things to *you* at different times. If you use dreams as filtered through other philosophies, you may miss the most important question: what can your dream do for *you* as a writer?

I ask that you take a *phenomenological* attitude towards dreams—that is, experience the nature of your dream for the first time, every time, as if you didn't even know what a dream is. Phenomenology is the study of consciousness and the objects of direct experience (i.e., as experienced from the first-person point of view) (Zahavi 2002). Phenomenology tries to get at *the thing itself* without interference; it is the direct experience of a person consciously and intentionally undergoing the phenomena. Bert O. States, the performance theorist (more about him in a moment), explained the phenomenological attitude this way: "It is rather an ability to see through 'the film of familiarity' that blunts 'the scene of things' through its reiteration" (States 2007, p. 26). Because of the constant repetition of phenomena in our daily lives, including our experience of dreaming, we become habituated to them; because of this desensitization, we lose sight of our real experience. In addition, we become prey to other theories about those experiences. Phenomenology is "the systematic attempt to unmask the obvious," according to theorist Bruce Wilshire (1982, p. 11).

Typically, phenomenology asks that we bracket out all information we have received about a specific experience (the philosophical term for bracketing is called *epoché*) and respond—subjectively, and as specifically as possible—to the experience itself, noticing our own impressions of it. And in phenomenology we come back to as many different aspects of that experience as we can, getting at its essence. States calls this process a kind of "impressionism" or a "perceptual critique of the real world" (States 2007, pp. 26–27). However, another word for phenomenology… is art! In other words, you the dreamer will take control of your own dream in the present moment, respond to what you receive, decide what it means, and get at the essence of the dream to create art. (There are no dream police who will dispute the accuracy of your dream report.) You decide what happened in your dreams—or what you *think* happened in your dreams. Dream reportage is as much art as it is fact; only *you* remember what happened in your dreams.

Now, most people know of psychologist Sigmund Freud's work with dreams, and that of his student Carl Jung. Both were brilliant thinkers and dream analysts, and they wrote much that speaks to those who are interested in dreams. For Freud, dreams were the *royal road* to the subconscious, with hidden messages that were repressed by a second self—a kind of inner "homunculus," as the theatre theorist

Bert O. States (1993, p. 66) would call it. For Jung, dreams mattered not for what they hid but for what they revealed, and these revelations came through mythic narratives that provide a collective insight into our lives. Whether or not you agree with their ideas, these two thinkers believed that dreams are *important*—many scientists today *do not*. And I might add that Freud's notion of using free association to understand dreams is a brilliantly useful process—but only if it's *you* doing the associating.

Why dreams? Because that is the place where we surprise ourselves. That's where magic and theatricality explode: in the non-reality of dream structure and logic. Dreams are fictions that we create uncensored by our waking selves; they flow unexpectedly from one landscape to another and are the heart of our fiction-making abilities. Evolution gave dreaming to all mammals, including us, as a survival technique—we use dreams to clarify and distill our memories, define our goals, and answer our questions. Dreaming is something we do without our volition, and yet whole worlds unfold before us, unfettered by our inner critic. The goal is to use the natural power of dreams, and bypass that critic, to move your plays from the tedium of reality and cliché into the enchantment of theatre and film magic. In the end, as dramatic writers, we want to tell *new* stories, *fresh* stories, *surprising* stories—and the master storyteller within us is our inner dreamer.

One major influence on my use of dreamwork comes from my actor training at Rutgers University, where I studied with William Esper and Kathryn Gately in the Sanford Meisner acting technique (itself based on the teachings of the great Russian director Konstantin Stanislavsky, who famously created the first modern system for acting technique). In the 1930s, Meisner was a member of New York's Group Theatre. The Group Theatre, which also included brilliant director and drama critic Harold Clurman, as well as fellow acting teachers Lee Strasberg and Stella Adler, popularized the ideas of Stanislavsky with stunningly-acted productions of Clifford Odets's plays dealing with important social issues of the day. Because of the brilliance of the acting in the productions, and the truth and energy those performers unleashed, the lasting legacy of the Group Theatre was a new approach to acting.

Part of that legacy was due to the technique of *affective memory* (another Stanislavsky-based acting technique), taught by Strasberg as part of the Method. Affective memory was used to help actors discover the emotional life of their characters by concentrating on their own *actual* emotional memories. Due to Strasberg's influence, affective memory became the primary means for actors to explore emotional life. However, a concern with the technique was that by concentrating on their own actual memories of emotional experiences, actors would focus inward and away from other actors, thus leading to self-indulgent, self-involved acting; this approach propelled the actor toward a form of psychotherapy without the assistance of a trained therapist. Meisner and Adler both found affective memory to be ineffective and even dangerous psychologically. Adler, who also taught a version of Stanislavsky's system of acting, gave up any kind of direct stimulation of inner emotional life in the actor—as did Stanislavsky himself—in favor of deep, thorough analysis of the given circumstances in the script, built on Stanislavky's later technique of psychophysical action. Psychophysical action embraces a full mind, body,

and vocal approach, one that develops an actor's conscious awareness (Benedetti 2005).

Meisner's alternative was to develop *emotional preparation*—the use of a controlled daydream or fantasy to produce an inner emotional life. Meisner, who gave precedence to the actor's connection with his partner, wanted to approach actors' inner lives without the actors disappearing into their own past. Instead, he decided that the actor could create emotional life by *imagining* or *daydreaming* a situation that has never happened. The actor creates this daydream with the insertion of characters who possess an *element of truth*—that is, by using real people who have an emotional meaning for the actor. The actor imagines those real people inserted into a situation *that has never happened* to stimulate emotions within her- or himself, using all fives senses to flesh out the daydream.

Meisner believed deeply in the power of fantasy as a force for actors to create emotional lives for their characters, and he believed Freud was correct in saying, "There is, in fact, a path from fantasy back again to reality, and that is—art" (Freud 1953, pp. 384–385). Meisner was fascinated by Freud's essay "The Relation of the Poet to Day-Dreaming" and the notion that "happy people never make fantasies, only unsatisfied ones. Unsatisfied wishes are the driving power behind fantasies; every separate fantasy contains the fulfillment of a wish, and improves on unsatisfactory reality" (Freud 1995, p. 439). The power of the actor to use imagination as a source of emotional life was central to Meisner's ideas about acting and art in general.

Meisner's book, *Sanford Meisner on Acting*, shows that one particular passage from Freud's *Introductory Lectures on Psycho-Analysis* had an important impact on the nature of emotional preparation. In it, Freud notes that the artist:

> possesses the mysterious ability to mould his particular material until it expresses the ideas of his fantasy faithfully; and then he knows how to attach to this reflection of his fantasy-life so strong a stream of pleasure that, for a time at least, the repressions are bout-balanced and dispelled by it. When he can do all this, he opens out to others the way back to the comfort and consolation of their own conscious sources of pleasure, and so reaps their gratitude and admiration; then he has won—through his fantasy—what before he could only win in fantasy: honour, power, and the love of women. (1922, pp. 314-315)

As an acting student, I connected deeply with Meisner's approach. While I wasn't interested so much in honor, power, and the love of women, it was a revelation to me that—using Stanislavsky's notion of the *magic if*—a daydream could be crafted that affected me as powerfully as real life (Stanislavsky 1936/1989). Emotional preparation works by simply allowing the actor to believe the given circumstances, and live within them, no matter how fantastic they might be.[1] The actor must think, "If I were this character, how would I *feel* in this situation, and what would I *do*?" The power of the *magic if* is ultimately the unleashing of the fundamental creative power of theatre: that as mimetic creatures, we have the ability to

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[1] The term "given circumstances" encompasses the entire set of environmental or situational conditions that influence the actions a character in a drama may undertake within the confines of a plot.

imagine ourselves in any situation and emotionally *live* there, truthfully, as if it were real.

And the daydream or fantasy can even work in this simple exercise to bring about any basic emotion—rage, for instance—nearly instantly. Imagine *if* you could rebuke a (real) person you *really* don't like over an (imagined) frustrating experience which would be typical of that person's behavior. Imagine that scene in every specific sensory detail—asking yourself what you see, hear, taste, touch, and smell. Now savor what it might be like to tell that person exactly what you think of them— and if you stay with it, giving in to the rush of feelings that comes with the specificity of the details, emotionally it will take you into a rage—just saying those words that you might say to that person who has wronged you, in your imagined scenario. You are probably imagining it, even as you read, and feeling those emotions.

It isn't a huge leap to use the same notion with regard to dramatic writing. With a careful, nuanced approach to exploring dreamwork, applying daydream or fantasy elements can be helpful to writers who want to deepen and enhance the magic of their stage and film scriptwriting. The ability to fantasize and explore emotionally rich scenarios is what makes anyone a storyteller. It takes practice, but eventually, daydreaming may become a skill to unleash the associative power of dreaming. Using some of the dream material you collect from the exercises which I discuss below, you can enter the "zone" or "flow" where your characters take over. Once your characters are in charge, you take your hands off the steering wheel, and go where your imagination takes you.

In addition to Sanford Meisner's technique of emotional preparation, the other primary influence on my thinking on dreams has been Bert O. States, the theatre and performance theorist I mentioned earlier. States' brilliant ideas in *Great Reckonings in Little Rooms: On the Phenomenology of Theatre* (1987) and his article *Performance as Metaphor* (1996) are seminal theoretic discourses on the nature of theatre. And in three books, *The Rhetoric of Dreams* (1989), *Dreaming and Storytelling* (1993), and *Seeing In The Dark: Reflections on Dreams and Dreaming* (1997), States uses phenomenology, psychological analysis, and neurological case studies to build a detailed model of how dreaming and fiction share certain similar qualities and how writers bring these aspects of dreaming to their writing.[2] States challenges the traditional Freudian interpretation of dreams (as symbolic of various repressions or the manifestation of wish fulfillment) and examines in detail the phenomenon of dreaming itself and *how* dreams mean, rather than *what* they mean. His work offers a new way to look at drama, particularly non-realistic drama, which he believes has its roots in the ur-fiction of dreams. States explains dreams as involuntary fiction and fiction as voluntary dreaming. Specifically, States suggests that dreams suggest a special means for the writer to explore nuances of reality: "Dreams… offer something like a complementing definition of the world, one

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[2] For a thorough exploration of Bert O. States' work in dreaming and fiction, see *Dreaming and Storytelling* (1993), *The Rhetoric of Dreams* (1988), and *Seeing In the Dark: Reflections on Dreams and Dreaming* (1997).

(among other things) that rescues the 'real' world from certain limitations of linear and spatial probability" (States 1993, p. 46).

Taking a phenomenological approach to dream images, action, and characterization means we subjectively respond to these phenomena: allowing ourselves any interpretation that feels right, not drawing upon a preordained system of symbols. Again, a phenomenological response to a dream is about creating a subjective essence of that dream, in other words, creating a work of art—whether it's a play, a painting, or a piece of music.

What dream plays (and dreams) do is "make strange" or "rescue meaning from" the day-to-day reality of the reader/audience and tease out a new understanding of that reality. This formalist technique is not unlike the nature of art itself, as described by Victor Shklovsky (as cited in Lemon and Reis 1965) and further elucidated by Brecht (1964); it is a kind of revisioning of reality. States himself considers art "a species of phenomenology" in a "loose sense" (States 1997, p. xi). The phenomenon of dreaming in drama has a metadramatic effect as it subverts traditional, realistic dramatic structure.[3] Dreamwork provides an alternative to the method of organizing dramatic action found in the Aristotelian crisis/conflict model of playwriting amplified by Archer, Brunetière, Freytag, and others (Hornby 1986). It relies on the strong emotional shorthand of dreaming itself. What seems bizarre to us in nonrealistic plays still makes a kind of sense because we are "taught" how to understand non-linear leaps of logic through similar experiences in our dreamlife. We regularly experience the mutability of characters and dreamscapes, the bizarre shifting realities and segues every night as we explore the realm of our dreams. When we see it in art, we often have an instant emotional connection to the strangeness set before us.

By subverting traditional dramatic technique, we unleash surprising new methods in storytelling. A dramatic writer can use dream structure similarly to how Scottish Travelers tell dream stories—as a way to focus. Scottish Travellers or Gypsies (known in Ireland as "tinkers") are a diverse group of nomadic people, some related to the Romani lineage on the European continent, who are known for their distinct stories, which often have a strange twist. Donald Braid, a folklorist and documentarian of Traveller culture describes how the bizarre or uncanny works in the Traveller's dream stories:

> [T]he confusion engendered in dream story performance motivates an ongoing interpretive struggle to make sense out of what happened in the narrated event. As listeners struggle to disentangle the incoherent dimension of the story, their attention will engage other, more coherent messages encoded in the performance… This engagement increases entertainment potential by drawing individuals into the narrative… [and] ensures that listeners will explore the narrative sufficiently to understand and remember the key meanings suggested by the narrator through the formal features of his or her performance. (1998, p. 329)

In these dream stories there is a "narrative knot" where the stories don't seem to make sense; the listener wonders, "Did it happen or did it not?" In one famous

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[3] Metadrama is drama about drama itself, or any moment of self-consciousness during which a play points to its own fictional status as a theatrical pretense.

Scottish Traveller's tale, "The Black Laird and the Cattleman," also known as "The Man with No Story to Tell," a character inadvertently switches gender just by glancing at his/her feet (Braid 2007). This bit of uncanny magic slips into the narrative in a quiet moment of revelation that is just accepted by the character as if it were normal—but it does give the reader a bit of a double take. Is the story nothing but a dream? This slippage of meaning in the world of the dream play makes the narrative difficult to understand, thereby requiring more of the listener's attention. We work harder to make sense of nonrealistic drama and its nonlinear technique because our dreams have taught us that important meaning may slip through a bizarre lacuna of narrative. Fundamentally, the value of the dream play is that its narrative sleight of hand makes audiences delve beneath the everyday surface into deeper levels of life. Such structures slam us up against the mysteries entwined in those knots.

And for the screenwriter who is coming to this essay, it's important to note the very close link between dreaming and films—if anything, filmmaking is a way of getting at dreams. Writer/directors such as Ingmar Bergman, Stanley Kubrick, and David Cronenberg are among many in the film industry who directly create from their dreams. Cronenberg was quoted in an article about his film, *The Method*, about Freud's notions of dreams, noting that:

> I've always thought movies functioned on the level of dream logic. Even a movie that purports to be a documentary or a very factual account—about, say, the gritty streets of Boston—it's still a dream. You're not in Boston, and even if you are, you're not on the streets, you're in a theater. (as cited in Drake 2011, para. 8)

Bergman drew extensively from his dreams to create his films and observed that "dreams are a sort of creative process" that come from the same "factory" as his films (as cited in Shargel 2007, p. 106). He used reality the "same way dreams do"; while dreams seem realistic, there is something disturbing there (as cited in Shargel 2007, pp. 106–107). His creative process was ignited by his dreams as a child, so much so that he would mix up "what was reality and what had been my dreams" (as cited in Shargel 2007, p. 107). It is fascinating to note, incidentally, how many extraordinary dramatists and screenwriters have used their dreams. In fact, our greatest writers have all confessed the importance of dreaming in their lives.[4]

So the next step is to develop your phenomenological attitude to collect the material of your dreams. Dream journaling is not an easy task. Not only are our bodies and minds designed by evolution to forget our dreams, but our understanding of our

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[4] Some major writers for film and stage who used dreaming and dreams in their plays include: Eugène Ionesco, famed Absurdist dramatist of *The Bald Soprano*; Adrienne Kennedy, major African American playwright of *Funnyhouse of a Negro*; director/writer Christopher Nolan, who used his own lucid dreams for his film *Inception*; Edgar Allan Poe, whose stories inspired countless films, wrote the wonderful essay, "An Opinion About Dreams," and based his poetry on his nightmares; Stephen King, who incorporates the symbols he finds in his dreams into his stories, including his novel *Dreamcatcher*; and Richard Linklater, who drew from his dreams to create the intriguing dream film, *Waking Life*. Many famous writers in other fields have discussed using dreams as well, including Margaret Atwood, Isabel Allende, Maurice Sendak, Maya Angelou, Anne Rice, Mary Shelley, H.P. Lovecraft, Richard Bach, E.B. White, Charlotte Brontë, Robert Louis Stevenson, Jack Kerouac, H.G. Wells, and Samuel Coleridge, among many others.

dreams is already tainted by what we have been told about them. And the physical and mental barriers to getting at dreams are just as powerful. Powerful chemicals within us separate our waking and dreaming selves—and those same systems paralyze us while we're dreaming so that we do no harm while we're in that vulnerable state. Otherwise, we would rise and enact the goings-on of our dreams, which would be perilous to ourselves, our roommates and spouses, not to mention our family pets (Hobson 1988)!

Dreams are, however, made anew nightly, and with practice, recording them becomes a healthful, happy habit. As Ira Progoff writes in his book *At A Journal Workshop*, "dreams reflect the tensions and anxieties that are bound to arise in a person's life out of the conflict between immediate desires and requirements of the long-range goals of his life" (1992, p. 201). Though dream reportage is challenging, it is important to record your dreams in a dream journal as the first step toward using them to create art. At first, don't worry about making this a daily journal—try it as spontaneous writing—slowly developing the habit as you wake up from a dream and remember it. Keep the journal close at hand to record the dream as soon as you have had it. Record your dreams without interpretation, merely observing the details and trying to maintain an objective point of view. See Deborah Garfield's *Creative Dreaming: Plan And Control Your Dreams to Develop Creativity, Overcome Fears, Solve Problems, and Create a Better Self* (1974), which explains how to keep a dream journal and offers techniques for developing control over dreaming itself.

In addition to your daily dreams, record your recurring dreams or recurring elements. Do you have special abilities in your dreams? Do you see the same people? The same places? Do you have "typical" scenarios? To this oneiric mix, add the dreams you remember from your childhood or during special events in your life. Note bizarre moments of strange image juxtapositions, impossible actions or activities, unusual emotional connections, and oddly familiar characters. The bizarre in our dreams becomes a clue for what is unsettling us, what is making us think. Remember that dreams are a means to our survival as mammals—there is no such thing as an unimportant dream—so write it down. The uncanny, mysterious, disturbing, or profoundly pleasurable aspects of our dreams provide an emotional landscape we can draw upon as artists. As long as you stay away from trying to interpret your dreams, and respond to them honestly, subjectively, and with thick description, you will find your dreams becoming artistic materials.

While you're gathering daily dreams, one way to hone your dreamwork skills is by inventing a "classic" or "waking" dream for yourself. Focusing on your five senses. Allow recurring images and emotions to pass through you. *As you create the dream, remember that you have no other reality than the reality of the dream.* Don't judge this dream scenario; just let it occur and write it down without censoring it. Allow the bizarre, uncanny, and illogical elements to predominate—don't worry about making logical sense; allow the associative logic of dreams to make the sense for you. Work off of your own emotional response.

Once you've gotten fairly skilled at creating "waking" dreams, start focusing on developing the dreams of your characters. Contemplate the precipitating events of your characters' lives, the conflict that they must now confront, and mingle these

elements with their more general aspirations and life goals. What are their most important concerns? What are their obsessions? How do these goals, concerns, obsessions affect their dream scenarios? One thing to bear in mind: dreams are as important to your characters as they are to real people—which is to say, they vary in their effect. Some of your characters will not think much about their dreams, except perhaps to note their strangeness. Others may see their dreams, maybe a specific dream, as extremely important, even life changing. But if you start with yourself as the character you know best, you can learn a great deal about how dreams affect characterization.

What follows is a series of exercises and ideas to help you begin to throw off the concerns and cares of this world and enter into the world of your dreams. To do so, you will have to let go of preconceived notions about playwriting and cookie-cutter dramatic formulas. Instead, open yourself to the fluid transformational impulse of your dream world—and allow the power of suggestion, daydreaming, and the free-flowing stream of consciousness to guide a writing technique that will move from behind your mind to your pen or keyboard. Don't question the strangeness of what comes—and whatever fragments you find, consider them gifts from your subconscious. The world of your dreams awaits: verdant, fertile, and full of surprises. Let's take the first step—which is to relax!

4.2 Discovering Your Dreams: Dreamwork for Dramatic Writing

4.2.1 Step 1: Working with Dreams—Getting into the Flow

The first step to dreamwork is to learn how to relax and to use relaxation to build the active trance state of daydreaming. Now, you might get a bit nervous about the idea of putting yourself into a trance, but in reality you do so all the time when you daydream: you allow your imagination to take an emotional reaction and flow with it, effortlessly, until you are actually reacting as if it were real. The active trance state of daydreaming is also another way of thinking about Mihály Csíkszentmihályi's notion of *Flow*, or being in the *Zone*. In his various books (most famously, *Flow: The Psychology of Optimal Experience* (2008)), the famous Hungarian psychologist looks at how to achieve a highly focused mental state in order to boost creativity and happiness. Csíkszentmihályi explores the relationship between flow and creativity himself in his book *Creativity: Flow and the Psychology of Discovery and Invention* (1996), and you might be surprised to discover how closely interrelated the various states of relaxation, meditation, trance, guided imagery, and hypnosis can be.[5] Those

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[5] One of the more inspiring and notable teachers of dreamwork for dramatic writing is Jean-Claude van Itallie, author of *The Serpent* and several other plays that he created for Joseph Chaikin's Open Theatre in the 1960s and 1970s. In particular, van Itallie's chapter "Dreams and Ceremony" in *The Playwright's Workbook* (1997) offers useful insights into dreamwork, seen through the ideas of

who lead others in these spiritual (and by extension, artistic) journeys—such as actors, teachers, shamans, hypnotists, personal growth workshop leaders, and life guides—do similar things to induce flow.

Csíkszentmihályi lists nine components to achieving flow, which include "challenge-skill balance… merging of action and awareness… clarity of goals… immediate and unambiguous feedback… concentration on the task at hand… paradox of control… transformation of time… loss of self-consciousness … and autotelic experience" (as cited in Fullagar and Kelloway 2009, p. 596). These elements have always seemed a bit intellectual to me, as a former actor, and so when I approach the notion of flow, I prefer to focus on two major elements—the "loss of self-consciousness" and the "autotelic experience" (autotelic means to do something for the pure joy of doing it, not for the possibility of external reward). Intriguingly, Stanislavski's emphasis on relaxation and concentration for actors provides a very similar framework for his ultimate goal in creating his acting system—artistic inspiration! So if we work for the active trance state of daydreaming, and we allow ourselves to indulge in the sheer pleasure of that, the dreamwork—and the writing—will come. So now, take three deep breaths, and as in basic mindful meditation, focus on your breath, allowing yourself to relax, and empty your mind. An empty and relaxed mind is the first step to dreamwork.

4.2.2   Step 2: Devising Your Dream Cache—Gathering the Stuff of Your Imagination

Your dream cache is just a paper lunch sack at first. But as this process continues, we'll be using it to build a plot for a new play, a new character, a plot twist, or a dream itself. Each of these elements will have at its core a dream logic base.

Gather a paper lunch sack, some colorful markers, and some multicolored construction paper. Take a moment now to draw some pictures on your dream-bag—something evocative. Don't rush. The drawings could be patterns, symbols, animals, plants, faces—they represent something you're feeling right now. Let these drawings be the magic that starts your experience today. The cache should be something restful, welcoming, something you would like by your bedside tonight. You can use this exercise as a beginning for a new play, to work on a current play, or even to work on a current character. Ask a question of your dream right now—what do you want it to tell you?

Look at your construction paper. Using strips of paper, you'll write down the answers to the following questions and place them in your dream bag. Make sure

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theatre theorist Antonin Artaud, who developed his own vision of "the theatre and its double" through dream exercises in his 1938 work of the same name. Van Itallie continues to teach various kinds of meditation and dreamwork for playwrights and other artists through his Shantigar Foundation (http://www.shantigar.org), which also provides a peaceful place to develop insight into one's own creative impulses.

you tear off each element onto a separate piece of paper—so that you have a wealth of material to draw upon later.

During this process, you should take a moment to stretch, breathe, and relax. While it's best to do this work in a single time frame, you can certainly take longer to create your cache. Just be aware of where you are and how you feel in the present moment—as your environment constantly changes.

1. Dreams

– What did you dream about last night? Write down anything you can remember… a fragment of the dream story, a person in your dream, an object, a color, anything.
– Do you remember a childhood dream? Write down anything you can remember… a fragment of the dream story, a person in your dream, an object, a color, anything.
– Do you remember a recurring dream or dream element? Write down anything you can remember… a fragment of the dream story, a person in your dream, an object, a color, anything.

2. Desires

Dramatic scripts are engines of desire—people wanting and needing desperately—and then acting on those needs. The thrum of desire pulses through every moment in a play, through each character, driving them to do amazing and terrifying things.

– What *desires* come to mind right now?
– What obsesses you?
– Write down as many *desires* as you can.

3. Problems/Obstacles

Dramatic action is built on conflict. Characters have crucial, real needs—they pursue them, and the act of reaching for what they want causes an immediate reaction from the Universe, which pushes back—sometimes in a crushing manner. Still your characters reach, and reach harder.

– What *problems/obstacles* come to mind right now?
– Write down as many *problems/obstacles* as you can.

4. Feelings

Our emotional life is what makes us fundamentally human. We are driven by our emotions—our fear, our joy, our anger, our kindness. Characters are quite often overwhelmed by their emotions, which fuel their desires, and set them on a path toward destiny.

– What *emotions* are you feeling right now? Happy, sad, blissful, anxiety-ridden, mysterious?
– Write down as many *emotions* as you can.

5. Questions

Every dramatic script raises immense questions about our humanity—questions that are perhaps unanswerable, but must be raised to begin the task of coming to terms with the complexity of the world. We often think of the major dramatic question driving the action of a play or film script. Dramatic action moves forward much like the structure of a legal court—principles and ideas drive our desire for justice, coming from profound differences in response to fundamental questions.

– What fundamental *questions* come to mind right now?
– What questions inflame you?
– Write down as many major *questions* as you can—tear off each question on a separate strip of paper.

6. People

There is no drama without character—and the characters we write about are often variations on ourselves and the people we love. Modern drama began when writers focused on character rather than plot.

– Who are the people you see in your mind right now? Write a slip of paper for each *person* as you see them. Write down a name, a hair color, what they might be wearing, a bit of personality. Jot it in for now; you'll come up with details later. Write down characters who are real, or totally fictional, or even historical figures you find fascinating. Let them appear to you. Write as many as you can. Who intrigues you right now?

7. Events

Events shape the structure of drama—life events such as weddings and funerals, births and deaths, the coming and passing of loved ones, all shape how we experience our lives. We are tied to seasonal events, family events, rituals that mark the divisions of our youth, adulthood, and old age.

– What events haunt you right now? Write a slip of paper for each *event* as it comes to you. It doesn't matter if they're real, fictional, or even historical. Write as many as you can.

8. Places

The setting for a film or play has a profound effect on the mood, style, and emotion of its dramatic action and can even become a character itself within the drama. Places affect us sensually—we remember the smells of our favorite rooms, the sight of the landscape where we were raised, the sounds we would hear in the morning and evening, the textures and surfaces we could touch and feel.

– What places can you see right now? Write a slip of paper for each *place* as it comes to you. Consider real places in your life, or fictional or historical places. Write as many as you can. You fly to each.

9. Animals

Animals are profound symbols in plays. In stories or plays, they become a kind of avatar for the characters.

– What animals come to you right now? Write a slip of paper for each *animal* as it appears to you. Maybe it's one you fear, one that is a mystery to you, or one you loved as a child.

10. Plants

Shakespeare's plays are filled with flowers, plants, and herbs. Consider the wild-flowers and herbs in *A Midsummer Night's Dream* or Ophelia's floral madness in *Hamlet*. The flora of a story or play become profoundly important as part of the setting, character, even plotting of a drama.

– What plants can you see right now? Flowers, trees, shrubs, herbs? Write a slip of paper for each *plant* as it comes to you.

11. Objects

Whole plays in the nineteenth century revolved around a single prop. Objects have power. In mysteries quite often they're the weapon of choice for a murderer, or in great stories, such as *The Lord of the Rings*, they become symbols for something much larger.

– What objects can you see right now? In your hand? Write a slip of paper for each *object* as it comes to you.

Writer's Challenge If you're working in a group, take a moment to look at each person in your writers' circle. Write down three items for each of the other participants in the room. Be kind, gentle, helpful.

4.3 Creating with Dream Elements

Now that we've gathered all this information, we are ready to start working with your dream elements to create a dream, a dramatic idea for a play or screenplay, and to explore the characters in the story. In each case you'll want to allow the ideas to flow in two different ways: (1) you can simply pull things out of your dream cache and work with each in the order it comes out of your cache, or (2) you can pull objects out and incorporate the one that works best in the scenario you are creating. If it doesn't work, toss it aside and keep picking. Either approach has an element of chance to it, and an opportunity to push your creativity to help you write.

Ultimately you have to embrace the random nature of dreamwork, because you are trying to get past all the clichés and platitudes that plague much of the writing we see in film and on the stage. You are trying to surprise yourself with what may be bizarre, uncanny, and perhaps just crazy. But be aware there is a method in your

madness, because this kind of creativity—totally free of self-censorship—leads to new art that has never been seen before, and it's come organically from your own psyche.

4.3.1 Step 3: Writing a Dream—Freeing your Natural Creativity

Now that you've extracted material from your dreams, it's time to write your own dream. Telling a dream is like telling any story. According to States (1993), the landscape of your dreams often follows one of three major tropes, not unlike the literary tropes that we all know. Choose one of these tropes as a structure for your dream:

Lyric Dreams are "a nonnarrative mode that expresses a state of mind… in an orderly way" (States 1993, p. 88). They explore a sudden emotional feeling for a place or object, and explore it fully in terms of the five (or perhaps six) senses. They are intensive, introspective, internal, highly subjective and personal. Nightmares and erotic dreams are usually lyric dreams. Lyric dreams are short form dreams.

Epic Dreams are a journey, linked by the desperate desire to find a person or object, commit some kind of act, or participate in an event. They are extensive, extrospective, external. These social, communal (we) dreams involve human *activity* in the world (war, peace, work, etc.) or shared values (tribal codes of honor, patriotism, etc.). These are long form dreams.

Dramatic Dreams take a "what if" scenario to the absolute, and perhaps bizarre extreme, finding linkage in images or objects and taking a dramatic action to its nearly illogical extremes. These dreams move from the banal to the bizarre.

Your dream will begin with these words, "Last night I had a dream, and this is what happened…" and from there you will remove one item from your dream cache, after first mixing it up thoroughly. Look at this first bit of language. This bit will begin your dream narrative. Let it resonate with you for a moment—you can use not only the word itself, but whatever you may emotionally free associate with that item.

Write the first two sentences of your narrative; pause; and remove another strip of paper from your dream cache. Let it resonate with you, and free associate with it—see if you can incorporate it in its original form—and if not, use free association. Continue writing another two sentences. Then stop and remove a third item—process it as well, then write two more sentences. Choose a final bit of language—and then end your dream with this final item from your dream cache.

Read this dream out loud—what does it feel like? Write three more dreams, write them on different days—and record the dreams that you have on those evenings. Eventually, you will create a dream cache for each of your characters and discover their dreams as well.

4.3.2 Step 4: Creating a Dream Play Idea—Germinating the Seed of Your Invention

When I was first preparing to teach playwriting, I met with Professor Buzz McLaughlin at Drew University in Madison, NJ, who challenged me to give students a fundamental background in the basis of traditional dramatic structure. Being a somewhat non-realistic, non-linear writer myself, I was at first a bit uncomfortable with what I considered a cookie-cutter approach to writing plays. But over the years, Buzz's wisdom has stuck with me. His basic notion of creating a "play idea worksheet" is incredibly smart, useful, and a professional way to jot down the basic idea of your play in a simple, quick, and testable way. So what follows next borrows a great deal from Buzz's wonderful book, *The Playwright's Process: Learning the Craft from Today's Leading Dramatists* (1997) to move your dream ideas to play ideas, and I encourage you to read that book to explore more traditional notions of playwriting.

Buzz's play idea worksheet has essentially eight dramatic components: (1) working title, (2) central character, (3) central character's need or desire, (4) other major characters, (5) setting, (6) occasion, (7) obstacle, and (8) resolution (McLaughlin 1997, pp. 70–71). There are a few additional dramatic components to think about, but these eight will give you the germ of the idea.

Here we'll start to plug in some of the elements of your dreams into a play idea worksheet—using the contents of our dream cache to create the dramatic components of our play. For each element of your play idea, reach into your bag, and pull out something that astonishes you! You will pull one element out of your dream cache eight times, and take time with each one as you pull it from your dream cache. Don't feel that you have to use whatever it is in a literal fashion. Consider taking an associative approach to decide how to use each element. If the dream element you pull out of the bag simply makes you *think* of something *else* for each of these categories, just use whatever idea you discover through association and don't think too much about it. Just go with the flow.

And again, you can *either* use each element as it appears, no matter how illogical or crazy—or an idea you discover through association. Just keep pulling things out of your dream cache as you feel necessary. Either way will work. Working with flow is most important.

Now that you have a basic idea for your dramatic script, you can begin exploring your characters, since you have to understand every aspect of your characters before you dig into writing a scenario, plotting the events of the script, or writing scenes. One way to explore character is to explore what your characters dream, and here, you'll use the same basic dream cache exercise described above for each of your characters. Then use the dream elements to create dreams, back story, or even actual scenes from the script you'd like to create.

4.4 Summary

There are many more dream exercises that you could try, too many to be shared here, but each major writer, whether in fiction, poetry, or drama, has explored the essence of their dream technique in their own creative writing. Dream moments in literature are the knots of strangeness you sometimes find in a writer's work—dream logic at work. Exploring other writers' dream technique is something that I do with my students: we discover the various ways other writers have experimented with non-linear, non-traditional writing technique, and then borrow the essence of their technique. Finding those essences, and adapting those techniques for your own sensibilities will provide an endless space of experimentation.

But for now, I encourage you to take a moment and think about what you dreamed last night. Don't worry if you only think you remembered something, just use what comes to you. Use any fragment, any word, any character, anything, from last night's dream to write the next sentence of your current story, poem, or play. Use it without caution, self-criticism, censorship or shame. Breathe with it. Enjoy where that tiny bit of dream takes you in the present moment!

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Chapter 5
Performative Embodiment as Learning Catalyst: Exploring the Use of Drama/Theatre Practices in an Arts Integration Course for Non-Majors

Kathryn Dawson

Abstract Arguments have been made about the need for more active and creative teaching and learning in higher education (Tepper S, and Lindemann D, Chang Mag High Learn 46:20–23, 2014); yet higher education often uses transmission focused forms of education like lectures and tests. Recent research on embodiment in sociology, philosophy and cognitive sciences suggests conceptual linkages between embodied ways of knowing, lived experiences and creativity. This exploratory, cross-case study uses thematic analysis to consider the use of performative embodiment as a creative teaching and learning approach in an arts integration course for undergraduate students. Through a process-tracing analysis of key course assignments, grading notes, and post-course interviews, I construct and compare three separate "cases" of students' experience of learning in the course over time. Findings suggest that using performative embodiment in an arts integration course may provide a dialogic, multimodal way for students to increase their sense of belonging in the classroom, to explore the value of the arts in education, to understand the importance of the body in learning, and to understand themselves as learners in education and professional contexts.

5.1 Introduction

The first class of FA 308: Arts Integration for Multidisciplinary Connections at The University of Texas at Austin begins with an embodied reflection. Each of the 43 undergraduate students, seated in fixed seats in a large university lecture hall, receives a 4 x 4 inch square of paper with a slit cut half-way up one end and a brightly colored marker. The visual arts professor starts by showing the students how to bend and fold the square to make a pyramid. Students are invited to write the

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name they would like to be called in class on one pyramid face; on another face, they write their gender pronouns if desired. For the final pyramid face, students are asked to express how they are feeling in an image. The art professor instructs: *Come up with a single word to describe how you are feeling today. Then, use a single line that does not leave the page to express your word visually. Consider how size, shape, curve and angle can express a feeling.*

After the lines are made, the students are asked to stand as the dance professor takes over the facilitation: *Next, we invite you to make the line from the paper, using your hand in the air.* The students create a single movement in front of them that traces the pathway of their written line: *Explore different ways to make your line gesture in the air. Consider what happens to the expression of your line and your word when you expand the size of your movement, shift the position of the movement in space, or change the force of your effort.*

Finally, the theatre professor asks students to pair up and share their movement through an embodied performance for their partner. After each performance, the observing student offers a one-word interpretation of what they saw. The sequence concludes with a seated classroom discussion about the experience facilitated by the theatre professor: *How did it go? As a performer, how did your body exploration help you understand how you feel? As an audience member, what aspects of your partner's movement did you use to interpret their feeling?*

The discussion that follows can be tentative. Embodied learning is unusual for a large university classroom, where students are used to the passive transmission of information through spoken lectures and power point slides. As they begin to reflect, students often describe how strong, creative choices (e.g., a jagged physical movement to show "nervous" or "excited") made it easier to accurately name the feeling being represented by their partner. Other students note that they felt uncomfortable using their bodies to communicate. The faculty end this discussion with a reflective invitation: *Consider what happens when we integrate the arts into non-arts content learning? Specifically, consider what happens when we use the body as a tool for dialogic meaning-making; in other words, what happens when we use the body to make meaning, express meaning and to interpret meaning with others?*

Although Western educational practices often privilege mind over body, recent scholarship in sociology, philosophy and cognitive sciences signals a growing interest in conceptual linkages between embodied ways of knowing, lived experiences and cognition (Ivinson 2012; Hall and Nemirovsky 2012). Embodied ways of learning signal an epistemological and pedagogical move toward acknowledging bodies as agents of knowledge production within the learning process (Wilcox 2009). However, the modern institutional spaces of schools and universities often discourage movement in learning and structurally hinder these kinds of pedagogical goals (Berdayes et al. 2004; Bresler 2004; Tobin 2004).

This exploratory, cross-case study uses thematic analysis to consider the use of performative embodiment as a creative teaching and learning approach in an arts integration course for undergraduate students. Through a process-tracing analysis of key course assignments, grading notes, and post-course interviews, I construct and compare three separate "cases" of students' experience of learning in the course

over time. Findings suggest that using performative embodiment in an arts integration course may provide a dialogic, multimodal way for students to increase their sense of belonging in the classroom, to explore the value of the arts in education, to make meaning about themselves as learners in education and professional contexts, and to understand the importance of the body in learning. I begin with a brief discussion of key theories from the arts, education, and creativity literature that shape the objectives, course design and facilitation of the course. Then, I discuss how these theories shaped the activities and assignments over the scope and sequence of the 15-week semester.

5.2 Theories Underpinning FA 308: Arts Integration for Multidisciplinary Connections

5.2.1 Performative Embodiment in Arts Integration

Arts integration is defined as the integration of arts pedagogy or practices into non-arts content areas (Silverstein and Layne 2010). Most arts and education scholarship stresses the importance of the creative process in arts integration, pointing towards the use of constructivist learning that is active, experimental, evolving, collaborative, problem-solving, and reflective (Dewey 1938; Piaget 1973; Vygotsky 1978). Constructivism specifically emphasizes the importance of individuals interacting with their environment (the people and materials) in the learning process to make individual meaning (Dawson and Lee 2018). Recent social science research often lauds constructivist teaching methods as an effective way to access creativity and "the kinds of deeper understanding needed by knowledge workers in the innovation economy" (Sawyer 2011, p. 3). The constructivist teaching in FA 308 uses a multi-arts focused approach to arts integration. However, as the theatre teacher in FA 308 I am particularly interested in the use and impact of drama/theatre[1] practices as a form of constructivist teaching in arts integration—specifically the practices associated with performative embodiment.

I use the term *performative embodiment* in this chapter to describe a range of drama/theatre strategies that use movement, improvisation, and role play to make individual and collective meaning. Performative embodiment engages the body and its experiences, alongside the mind, as a key laboratory for understanding and dialogue. Educational theory suggests that students develop language and grow through dialogue with their teachers, their peers, and their environment (Vygotsky 1978); more interactions result in more growth (Wertsch 1985). However, the quality of the interaction matters. If students disregard others' ideas as they express their own opinion, then the students' growth and understanding will be less substantive and

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[1] I use the combined term drama/theatre in this chapter to recognize my use of drama pedagogy (non-performative theatre methods which explore character, conflict, and story) and theatre practices (the skills and techniques of making and interpreting theatrical performance) in this study.

nuanced than if they are listening to and building upon another's ideas as part of their own expression (Dawson and Lee 2018; Chi 2009). Consequently, this study is designed to explore students' conceptualization of their learning experience when they use their body as both a tool and a text within a dialogic meaning-making process with others (Aukerman 2013; Edminston 2014; Perry and Medina 2011).

5.2.2 Locating Performative Embodiment with/in Creative Teaching and Learning

For the purposes of this chapter, creativity is defined as an "interaction among aptitude, process, and environment by which an individual or group produces a perceptible product that is both novel and useful as defined within a social context" (Plucker et al. 2004, p. 90). Research suggests that aspects of creativity learning can be taught and that an individual can engage with creativity in a variety of forms and levels of expertise (Kaufman and Beghetto 2009; Torrance 1974, 2008). Keith Sawyer's (2013) research into creative teaching and learning specifically aligns creativity development with Lev Vygotsky and other socio-constructivist theorists who assert that young people play a significant role in the creation of their own understanding. Sawyer's research engages with theories of drama/theatre education, specifically theatrical improvisation, to understand what "creative" teachers do to support learning in the classroom. He suggests that expert teachers engage in "disciplined improvisation" when they invoke, apply, and adapt activities and routines in the classroom to respond to students' learning needs and construction of new knowledge (p. 13). A key aspect of creative teaching and learning is the structuring of moments of *collaborative emergence*—the improvised interplay between students, and student and teacher, within classroom discourse where the results of the discussion are not pre-determined and are fully dependent on the unique mix of individuals participating (Sawyer 2011).

Sawyer's focus is primarily on sociocultural and constructivist teaching in general education learning. He does not explicitly discuss performative embodiment as a teaching method in his scholarship nor is his use of improvisation as a theoretical framework characterized as an integration of drama/theatre pedagogy or practices into non-arts content areas (i.e., arts integration). As a drama/theatre pedagogy scholar (see Dawson 2015; Dawson and Lee 2018; Dawson et al. 2011, among others), I posit that drama/theatre pedagogy and practices like performative embodiment can be located within the scholarship on creative teaching and learning. Sawyer's disciplined improvisation and collaborative emergence align with the dialogic meaning-making work of drama/theatre found in performative embodiment (Dawson and Lee 2018).

5.2.3 Developing a Deep Understanding of New Knowledge over Time: A Triple, Loop Learning Framework

A distinctive socio-constructivist aspect of creative teaching is the use of scaffolding. Scaffolding in learning refers to open-ended structures facilitated by the teacher that build on prior participant knowledge to support a more complex or higher level of understanding of learning (Sawyer 2006; Vygotsky 1978). FA 308 uses scaffolded, performative embodiment experiences over the course of the 15-week semester to support students' understanding of creative learning and teaching over time.

Educational theorists and human development researchers Argyris and Schön (1974, 1978) suggest that individuals often move through three scaffolded phases, or nested loops, in the process of developing a deep understanding of new knowledge—the phases include (1) reflection, (2) reflexivity, and (3) learning how to learn (1974, 1978). The 15-week scope and sequence of lectures, activities, and assignments in FA 308 align with the Argyris and Schön developmental process. The students explore the creative process as artists (reflection); they research and advocate for an arts integrated program based on their understanding of creative process (reflection + reflexivity); and they apply their understanding as they design, facilitate, revise, and reflect on a new arts integrated learning experience for their professional context (reflection + reflexivity + learning how to learn).

5.3 The Study, Sample, and Methods

In the next section of this paper, I examine the relationship between select performative embodiment activities and students' conceptualization of their learning during and after their time in the arts integration course. I begin with a brief history of the development of FA 308, followed by an introduction to my study context and sample, data sources, and methods used in my analysis.

5.3.1 The Study Context

The study took place at The University of Texas at Austin (UT Austin)—a large, public, research intensive university. UT Austin requires that its approximately 40,000 undergraduate students take at least one Visual and Performing Arts (VAPA) course to graduate. In 2013, at the request of the Dean of the College of Education, VAPA course FA 308: Arts Integration for Multidisciplinary Connections was

created by faculty from across the College of Fine Arts to support pre-service edu-
cators. However, the actual enrollment of the course is often evenly mixed between
education and non-education majors. Thus, FA 308 focuses on creative teaching
approaches that can be applied to personal and professional life in and outside the
bounds of standardized classroom instruction. Each module of the 15-week course
moves students through a series of performative embodiment activities. Module
One and Two invite students to create and reflect on their identity through online
posts, in class embodied exercises, and projects in each art form. Module Three
engages students in a reflexive investigation of the arts in educational and societal
contexts through a group presentation. Module Four gives students the opportunity
to embody and apply their learning as they design, lead and revise two arts inte-
grated lessons.

5.3.2   The Study Sample and Data Sources

During the fall of 2014, the four FA 308 faculty, with university ethics approval,
gathered data from 37 of the 43 undergraduate students enrolled in the course.[2]
Students in FA 308 in the fall of 2014 represented eight different majors; the largest
percentage of students (46%) were from education. The students in the course were
from diverse gender, cultural and linguistic backgrounds. The complex and diverse
identities of students served as a key "prior knowledge" resource within the course
that was often referenced and accessed in daily teaching and assignments. Students'
reflections on their identities formed part of the scaffolding for their learning.
Identity within the course was therefore viewed as an evolving formation that was
unfinished, complex and in a constant state of becoming. To de-identify the data in
the analysis, each student was assigned a number and a pseudonym to protect par-
ticipant anonymity.

   In 2015, ten months after the conclusion of the 2014 course, 30 of the original
37 students who chose to participate in the 2014 study were still enrolled at
UT. These students were invited over email to participate in additional interviews
about their experience in the course. Of the 30 students contacted, four scheduled
and completed follow-up interviews. In November 2015, a graduate student
researcher with no affiliation to the 2014 FA 308 study participants interviewed
each of the four students. All four interviews were recorded and made into inter-
view transcripts.

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[2] Data was collected for all 43 students throughout the semester through the common course
assessments and in-class assignments. As a researcher, I did not know which students had self-
selected to opt into the study until after final grades were submitted to avoid any bias towards
students in class or during the grading of assignments.

5.3.3 Methods

To begin my exploratory qualitative content analysis (Creswell 1998), I compiled all written assignments, discussion posts, my grading notes, and the post-course interview for each of the four students into a discrete case data set. Small sample sizes are acceptable in qualitative studies, particularly those using case analysis (see, for instance, Bunce and Johnson 2006; Crouch and McKenzie 2006; Leander and Boldt 2012). Each case formed a "bounded system" of information detailing the student's documented experience of learning in the course (Merriam 1998; Smith 1978). I analyzed each of the four individual cases for themes about the relationship between performative embodiment and learning through an in vivo coding process to capture participant generated words in a first reading of my data source (Saldaña 2015). Key terms/phrases that emerged included: "personal insights," "deepen understanding," "perspective taking," "learning through the body," "problem-solving," "collaborative," "respect," "creative ideas/thinking," "voice and body," and "out of the box thinking."

Next, I completed a second coding pass that used protocol coding (i.e., pre-established themes pulled from drama/education literature) to create group coding categories around four major themes. The final themes that emerged were: (1) creative expression and self-discovery; (2) value of learning in and through the arts; (3) sense of belonging; and, (4) the importance of the body in learning.

I selected three representative cases (Tess, Anna, and Kate) from the original four cases for an additional cross-case analysis based on their different programs of study and placement on a final grade continuum.[3] Tess was a third-year business major focused on accounting when she earned a 95.7% in FA 308; she was a fourth-year business major focused on corporate finance with a minor in theatre when she gave her post-course interview. Kate was a third-year student focused on elementary teaching certification when she earned a 93.1% in FA 308; she was a fourth-year student focused on youth and communities in education (no teacher certification) when she gave her post-course interview on her experience. Anna was an undeclared first-year student when she took FA 308 and earned a 77% in the course[4]; she was a second-year advertising major when she gave her post-course interview.

The three representative cases underwent a final cross-case comparison coding process. I adapted a form of "process-tracing" in my cross-case analysis—a method where the researcher explores a range of causal paths across a set progression of

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[3] Efforts were made to find the three cases of the four that were "most different" or diverse for comparison amongst participants' reported identity demographics (George and Bennett 2005, p. 165). Race/ethnicity of students was not reported in this study though it is self-identified in students' work. Gender identity and gender expression (e.g., personal pronouns) were reported in a student intake form. Gender identity and expression were consistent across all four participants; all four participants identify as cis-gender women so this was not a point of difference in the study sample, which is a limitation of the study.

[4] Key factors in Anna's final grade for the course were two missing assignments and one incomplete assignment. The work that was completed was of high quality.

Table 5.1 Description of Data Sources

Argyris and Schöen Learning Cycle Location	Course Scope and Sequence	Source	Goal and Description of Activity
Loop 1: Reflection	Module Two	*Recipe for Me* Assignment	Students explore and reflect on creative process in theatre.
Loop 2: Reflexivity	Module Three	*Arts in our World* Assignment	Students research, assess, and advocate for a specific arts organization's use of the creative process to improve education/society.
Loop 3: Learning to Learn	Module Four	*Arts Integrated Learning Experience* Assignment	Students design, facilitate, revise and reflect on an arts-integrated learning experience that uses creative process to innovate their future professional context.
N/A	Post-Course Interview	Individual Student Interview	Students reflect on their experience in FA 308, one year later in semi-structured interviews.

events to generate an explanatory typology (George and Bennett 2005). I compared four data sources across the cases, as seen in Table 5.1, selected to mark sociological shifts over time (LeCompte and Preissle 1993).

In my individual case analysis and cross-case discussion I work to process-trace the relationship between the Argyris and Schön learning cycle, the course scope and sequence, the instructors' use of performative embodiment, and the students' meaning-making and conceptualization of their learning. I strive to offer meaning-making both about individual and cross-case processes over time. I also acknowledge that my analysis focuses on data gathered from students who volunteered to participate in an additional interview after the course was completed. I recognize this additional bias and limitation in my efforts. This qualitative study compares the unique experiences of individual students only to expand understandings and possibilities for others to consider, not to generalize (Gilmore and McDermott 2006).

5.4 Analysis and Cross-Case Discussion of Findings

5.4.1 *Reflecting on the Creative Process and Skills of Theatre*

The goal of Module One (weeks 1–2 of the course) is for students and faculty in FA 308 to co-construct a working definition of arts integration and creative teaching. Students read articles, which they discuss on-line through posted reflections, as well as during in-class embodied activities. Module Two's (weeks 3–6) goal is to introduce vocabulary and a creative process/product in each art form (dance, theatre, music, visual art). The class divides into four cohorts who simultaneously cycle through a one-week creative process/product experience with the assigned art form faculty.

During this study, the Module Two theatre process/product assignment included a devising activity called a "Recipe for Me," which is adapted from the work of Chicago's Albany Park Theatre Company (Dawson and Lee 2018). In Recipe for Me, students write, stage, and perform their identity as a recipe. In this assignment, I used creative teaching approaches to apprentice students in the tools of theatre making; students work as a playwright, designer, actor, and director of their individual or small group performance. After each individual or group Recipe performance, I facilitated a verbal reflection process with the class. My questions connected audience observations and artist discoveries to larger ruminations on the creative process in drama/theatre to scaffold students' meaning-making in the assignment. The reflection followed three steps: (1) "I appreciate…"—the audience offers positive observations about the work using theatre terminology, (2) "I discovered…"—the artist/s share what they learned from the creative process, (3) "I wonder…"—the professor offers a question about how we make meaning in and through theatre based on artist/audience discoveries. Students also completed a written reflection about their work and discoveries in the assignment.

5.4.1.1 Recipe for Me: Analysis

Tess: Tess performed a solo taco Recipe that explored what is in/visible about her identity to others. She began her performance holding a large piece of fabric (her "tortilla") and instructed the audience to "Handle it delicately; this shell can be easily ripped" while she stretched the cloth carefully across her shoulders and back. Tess described her personality ("Grab two spoons of drive and ambition and spread it on the tortilla") as she stuck university and business school symbols onto the inside of the fabric, and her racial identity ("Add a quarter cup of Korean") as she added her name written in Korean to the symbol collection. After adding the rest of her ingredients, Tess concluded her performance by closing the fabric tightly around herself as she stated: "Wrap it all up so that all they see is the shell. Lastly, and most importantly, dig in."

Performative embodiment gave Tess a way to physically and verbally reflect on the literal and figurative layers of her identity through abstract juxtapositions of signification (e.g., fragility as compared to drive and ambition). Her exploration of visual and verbal metaphor was excellent; she earned the highest grade for "creativity/originality" of the three case study students. Tess' written reflection on her performance acknowledged her feelings of growth and discovery: "I was always uncomfortable with theatre that was unrealistic and bizarre, but [through this activity] I learned to embrace it and have fun."

Kate: Kate worked in a group of three for her Recipe for Me assignment. The students wove together three individual recipes into a group performance; a challenge they solved by each personifying a popular chef from the "Food Network" and turning their recipe into one layer of a collective cake. The students' concept lacked originality (many of the students in the course turned their Recipe into a cooking

show); however, their work was performed with skill and polish with an elaborate set and costumes. Kate cast herself as the "Barefoot Kate" in her performance and explored her multinational identity as the cake's "First Layer" when she offered, "add a ½ stick of English butter and ½ a stick of American butter and California-Dutch spices until you get a smooth mixture." She described her discoveries about the skills and complexity of theatre performance in her written reflection:

> I also learned about the many ways to deliver a line and how you deliver it matters! It's something every human being naturally does, like yell loudly when mad, or talk squeaky and quietly when uncomfortable. Also body language is a big part of how the audience understands what the actor is going through. I learned that, first I like theatre and acting. Theatre is also a great medium I found out to express you, like what we are doing with the recipes. By making a recipe and acting out what we do, we are showcasing things we think make up who we are.

Kate's embodied reflection about her identity and her written reflection about her learning in Recipe for Me demonstrated her attention to detail. She offers numerous insights into her emerging understanding of theatre performance. However her written insights, like her embodied reflection in the performance, lacked nuance and originality. Kate's strongest evidence of learning was her ability to collaboratively design and share an effective group performance in a short period of time.

Anna: Anna's Recipe for Me described the construction of a tres leches cake. In comparison to her colleagues, her recipe included more words that referenced challenge and struggle:

> Gather all the ingredients and utensils because you HAVE to be organized
> Now wash all the utensils because they NEED to be clean
> Add 1 tablespoon of insecurities
> Add ½ cup of positive attitude to mask the taste of insecurities
> Add a dash of clumsiness
> Add another dash of awkwardness
> Add a pinch of Mexican culture to make it just right
> Add 2 tablespoons of hardship and motivation
> Oh, and don't forget the most important ingredient, 2 cups of whole love
> Now mix it all together and put it in the oven for 18 years

You can now enjoy your Tres Leches [Anna] Cake. (capitalizations from student)

Anna performed her Recipe alone, also in the form of a cooking show; she did not complete the written reflection on the assignment beyond submitting her individual Recipe. Unfortunately, there is no written reflection on her work to characterize her discoveries in her own words. Her performance grading in my records articulates that she offered a dynamic characterization in her performance with "excellent volume" and a "vibrant personality" but the "cooking show metaphor could have been more fully realized" in its execution.

5.4.1.2 Recipe for Me: Cross-Case Discussion

The Recipe for Me data set (scripts, grading and reflections)[5] demonstrates the range of meaning-making and quality of learning explored in the performative embodiment aspects of the assignment. Recipe for Me begins as a written reflection as each student individually writes a recipe or personal script. Then, students worked individually or in small groups to build a very basic understanding about how theatre artists use a range of theatrical, semiotic (or visual) conventions to express and convey textual meaning to audiences. All the students explored the use of costumes, sets, sounds, and/or props (physical objects) to activate their written recipe through performance; then, they wrote a written reflection about their experience.

The creation of the recipe in written form gave students the opportunity to reflect on their identities (e.g., Anna describes herself as insecure, clumsy, and points out her ability "to navigate hardships"). Then, the performative embodiment of the recipe enabled students to reflect through additional symbol systems that reinforced and/or juxtaposed their written/spoken communication (e.g., Tess tightly wraps her "delicate" taco blanket into a visible, metaphorical shield as she calls out, "Dig in!"). Working in groups also offered additional practice in divergent thinking (e.g., Kate) as students navigated how to put their multiple viewpoints in dialogue with one another for a cohesive performance.[6]

In their post-course interviews when asked what they remember most from class, two of the three case study students described agentic associations with creativity in the Recipe for Me assignment. Tess stated, "I was so surprised by myself with how creative I got putting symbols about my life in my piece." Anna's comments extended this argument when she described her creative agency in Recipe for Me as a shift in power from teacher to student: "Our instructors gave us so much guidance, but always asked us to create things from our own beliefs and passions in life instead of telling us what to do exactly and how to do it."

These findings align with research which suggests that a key way to develop creative thinking in students is to focus on their "unique and personally meaningful insights and interpretations as they learn new subject matter" (Kaufman and Beghetto 2009, p. 4). Recipe for Me offered students a range of reflective opportunities—students explored abstract, visual symbol systems (Tess); they used divergent thinking (Kate); and they considered the impact of agentic self-expression in creative work (Anna). The skills and multi-modal meaning-making explored in the Recipe for Me assignment provided an essential, foundational introduction to the creative process in drama/theatre as performative embodiment. This data also introduced some of the key themes that emerged across the cases over time.

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[5] Unfortunately, I don't have documentation of the facilitated verbal reflection that occurred after each performance.

[6] Based on this discovery and larger class sizes, in subsequent semesters instructors required all students to work in groups for their Recipe performances.

5.4.2 Reflexive Considerations on the Use of the Creative Process for Educational and Societal Improvement: A Missed Opportunity

In Module Three (weeks 8–9) the full class comes back together. The goal is for students to reflexively synthesize their experience of the creative process across art forms and to examine how local, state, national and international organizations use the creative process to improve education and societal outcomes. In this study, the key performative embodiment assignment of Module Three was the applied "Arts in our World" assignment, which occurs in week 9. Students selected from a curated list of organizations (in local, state, national, and international locations) that engage a diverse group of participants (e.g., arts education researchers, K-12 students, older adults), for a wide-range of outcomes (e.g., creativity skills, social justice issues, Alzheimer's disease treatment). Students worked reflexively in this assignment, as they analyzed the organization's use of creative process to make connections to their prior learning in the course. Then, students stepped into role and gave a five-minute presentation about their chosen organization and its website in groups of three. They presented verbal arguments about the importance of the organization's work "in the world" and turned in a two-page, collectively written paper to summarize their findings. Each of the two presentation days was organized so that the class considered the day's case study examples—local to global—and included time for faculty contextualization of each organization.

5.4.2.1 Arts in our World: Analysis

Tess, Kate and Anna each presented on a different arts organization that aligned with their personal and professional identities in specific ways.

Tess: Tess, a third-year business student, selected Big Thought, a state-run arts education initiative that is doing transformative work in the educational sector. She and her colleagues advocated for Big Thought's work through the language of innovation: "[Big Thought] proves that the arts can all be used in different ways and can be incorporated to many fields like business, engineering, health and services." My grading notes show that Tess particularly addressed the way the arts "can give individuals a new perspective on life." Tess and her group critiqued the site for a lack of quotes from participants which they said made the site less "efficient" and "accurate." Although the assignment requested it, the group made limited reflexive connections between prior course work and the organization's efforts.

Kate: Kate, a third-year education student, and her colleagues advocated for Young Audiences, a national organization that includes arts education resources for school age young people across the United States. My grading notes show that Kate made strong links between the organization and her future as an educator: "Young

Audiences is proof that these types of programs are benefiting classrooms today." She also discussed how inspired she felt by the arts in education examples. Kate's group also critiqued the website; they noted that "the website did not contain student and parent feedback or videos to show first hand impact of Young Audiences' work." Although they offered numerous personal/professional connections, Kate's group offered limited links between the organization and prior course learning.

Anna: Anna, a first-year undeclared student, and her group made the most reflexive connections (personal, professional and course-related) to their international arts organization, El Sistema. Anna's group linked El Sistema's mission to "express music and art deeply…to make critical life choices as a result of their learning" to the performative embodiment work in class. The group stated in their written reflection: "We were able to express who we were through theatre by creating a recipe for me… through the arts, we have learned to be more creative and open-minded to making life decisions just like this organization." Additionally, my grading notes show that Anna, in her verbal presentation, specifically spoke to "El Sistema's commitment to underprivileged students"; she connected their work to her K-12 school experience and argued that the arts offer a way for her to access "her often unseen knowledge." Like their colleagues, Anna's group also critiqued the lack of visual images and student perspectives on the website.

5.4.2.2   Arts in our World: Cross-Case Discussion

The Arts in our World data set offers insight into how the assignment did/not offer opportunities for reflection and reflexivity for students, particularly in relationship to performative embodiment. In this study, the Arts in our World assignment was structured to give students the opportunity to self-select a local, national, or international arts organization—from a pre-established list—to analyze in small groups. Then, the students embodied and performed the role of "advocates" for the arts organization through the creation of a written synthesis document and in-class presentation on the organization for colleagues. In the assignment students were asked to use verbal and written meaning-making to reflexively connect their discoveries from Module Two's art form investigations to the arts organization's reported efforts and outcomes.

Tess, Kate, and Anna's use of arts and education discipline specific language in their written and verbal presentations on their arts organizations (e.g., "self-expression," "perspective taking," and "creativity") and critical feedback on the site's lack of student/parent examples reveals their growing ability to be an advocate for and critical consumer of the arts in education. Further, each of the students offered salient connections between their own identities and their chosen arts organization: Tess connected with her organization's use of innovation, Kate discussed education, and Anna made personal connections to the population being served.

It is important to acknowledge that although students' bodies were engaged in the Arts in our World assignment they did not use performance skills (e.g., drama/

theatre techniques) to deepen or increase their mediation of meaning of the content for themselves or with their colleagues. None of the students chose to overtly engage "in role" as advocates for their organization. Students presented information and faculty led student-reflection in a typical, albeit "active," approach to meaning-making in a university course. Although there was an intent to engage in performative embodiment, the outcome was not realized in this assignment during the study. Faculty continued to reflect on this issue over subsequent semesters of the course; eventually the in-class facilitation of this assignment was revised to include a more distinct performative embodiment sequence at its conclusion.[7]

5.4.3 Innovating Relevant Professional Contexts through Performative Embodiment: Learning How to Learn

The goal for the final five weeks of FA 308 is to give students two opportunities to apply their learning in practice. In the first two weeks the students are split in half, with two art form instructors, to explore a pairing of arts disciplines. The art form pairings are intentionally structured to maintain performative embodiment as an essential part of the creative and dialogic meaning-making process (i.e., visual art partners with theatre; music partners with dance). Students first work in pairs to lead a brief facilitation of a masterwork (a piece of music or a visual art work) through an embodied performative strategy (based in the creative process of theatre or dance). This facilitation is the first time that most, if not all, students in the course have ever facilitated a creative, embodied meaning-making process with others.

The final course assessment filled the last three weeks of the course and is the focus of my last performative embodiment analysis in this study. Students were grouped by non-arts topic interests that they generated (e.g., cellular biology) and each group picked a participant context that they wanted to consider (e.g., doctors and health care professionals). Next, each group developed a 30-minute inquiry that integrated the arts as a pedagogical method into non-arts content. Although performative embodiment was not an explicitly stated requirement, each case study student (and all 37 of the original students in the course) used some form of performative embodiment in their final project. Students co-taught their arts integrated learning experience to their peers in class; then, they individually revised their work based on peer and instructor feedback. Students also completed a final take-home essay assignment to reflect on their learning over the semester at the very end of the course.

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[7] In the current course structure, students end Module Three through a role play. Each student is given a $250,000.00 grant to award to the most deserving organization. After students select their organization (it does not need to be their own) they create a collective, embodied performative argument to defend their choice. Faculty have found that the dialogic meaning-making aspects of this revised role play help to synthesize and illuminate student understanding in productive ways.

5.4.3.1 Arts-Integrated Learning Experience and Reflection: Analysis

Tess: For the final arts-integrated facilitation, Tess and her colleagues explored how to use effective vocal delivery and body language when resolving a conflict in a business setting. The group's goal was for participants to explore collaborative language and ways to compromise using physical and verbal exercises. In Tess's portion of the lesson the class was divided into groups of two or three. Each group was assigned one of two contrasting emotions and told to build an eight-count movement sequence that expressed the state of emotion. Then, groups were paired together with their contrasting emotion and told to figure out how to combine movements into a final 16-count sequence. Each group shared their work and reflected on the similarities and differences in their choices. After this dialogic performative embodiment sequence, Tess invited her participants to reflect on what they discovered about compromise through the activity.

Tess's use of the body to express emotion and to dialogue with a contrasting emotion built upon her performative embodiment experience from the first day of the course. Her facilitation used the body as both "a text" for emotive expression—as students did on the first day—as well as a "tool" to explore the divergent possibilities of compromise. Tess reflected on her learning in the arts integrated learning experience assignment in her take-home final. She wrote,

> I would like to further expand on the facilitation. It was beneficial facilitating short lessons, but I wish to learn how to facilitate deeper lessons. For example, how would a facilitation look if we were to be micro-focused on one subject instead of a broad topic? […] If I had the opportunity to continue my workshop, I would use theatre to create more complex scenarios and maybe even start debates so that the students would continue to work with voice and body when dealing with a conflict.

Tess's comments show that by the end of the course, she began to conceptualize how others might "learn how to learn" more effectively through focused inquiries that use theatre strategies such as performative embodiment. These ideas took on a more reflexive stance about her own learning style in her post-course interview when Tess stated: "When I work in my body I think in different perspectives and absorb the information more so that I produce the materials faster and easier." In her final comments on the course, Tess brought together her focus on learning through the body and the use of multiple perspectives explored in her arts-integrated learning experience:

> The class changed my life, it was one of the most important classes someone could take in college. It helped me grow as a person and as a college student…I think people especially nowadays try and solve a problem in one specific way because that's the way people think. I think this class helped me learn that people learn and interpret things in different ways. I think art is one of the most open ways to learn about and understand problems. This course helped me to learn how to use the creative side of my brain to increase productivity and efficiency in my academic life.

Tess also shared that she added a theatre minor to her business course of study at the university because of the class.

Kate: Kate's final arts-integrated facilitation explored the solar system in a third-grade classroom. She and her colleagues constructed a multi-step lesson that invited students to embody the planets to understand their key characteristics, and relationship to one another and the sun. In her written reflection, Kate also explored the importance of active, embodied engagement in "learning how to learn." She described how her group worked to shift a traditional classroom paradigm in their learning experience: "we wanted students to actively participate in the sizing of the planets not just sit down while we talked and showed them." Kate also reflected on her emerging knowledge as a designer of arts-integrated learning:

> I realized to successfully integrate the arts, depth is better than breadth. You really want to go into one or two art forms deeply to convey your lesson than lightly skimming over 4 art forms to teach something. It is more beneficial to your students because the lesson is more focused when there are just one or two art forms teaching you, especially in a limited amount of time.

She specifically noted how the assignment made her "an advocate for the arts [by] keeping an open mind and having the chance to facilitate my own plan."

Kate was partnered with a youth and community education student instead of a teaching certification major for her final facilitation. Through this new relationship she realized she didn't want to get certified to teach. "The course was fun and engaging and the activities in the class were things I realized I could use outside the classroom too." For Kate, "learning to learn" through the arts in a university classroom expanded her conceptualization of places where young people can learn; it also helped her realize that the arts could be a daily support to her own academic life. In her post-course interview Kate described how prior to the class she "felt like a robotic student who regurgitates information"; however, after using the arts for different course assignments she "gain[ed] a new understanding of how to be creative when gathering ideas for academic projects." Kate's discoveries about the arts and learning also deepened her frustration at the current state of US public education: "I don't know why the education system underappreciates the arts. This class showed me so much about the worth and value it has in everyone's lives, even for people who don't want to be artists."

Anna: Anna's group focused their final facilitation on effective interview skills. The group's facilitation invited participants to explore "confident" and "nervous" movements through space and the use of "power stances" and their psychological impact on the body. To synthesize the exploration, the lesson concluded with participants working to embody and depict certain types of interview traits for the rest of the group to read and interpret. Anna's group also included rigorous verbal discussions at the end of each of their facilitated strategies to support participants' reflection on the use of the body in meaning-making.

For example, at the end of a sequence on power stances Anna asked:

> What did you notice before and after standing in a power stance? Do you feel a difference from the first time? Do you think standing in a power stance helps? Do you think it builds confidence? Why or why not?

After a strategy that explored in/effective interview conversations enacted by participants, Anna offered specific reflection prompts in her facilitation plan:

> Describe your delivery using body elements (shape, space, action, and attitude). What interview skills did you notice were being used? Did those skills make the interview more or less effective? How? What skills will you leave with after this activity that will help you in future interviews?

She also asked participants to state what they "learned about how to learn" in her final reflection questions when she asked participants whether the use of "the body in learning will help you remember things from this lesson more" and whether "the incorporation of the arts help[ed] you learn about interview skills?"

Of all the case study student lessons, Anna's group offered the most rigorous and nuanced exploration of embodied meaning-making within performative embodiment. Anna's written reflection on her arts integrated learning experience also included a compelling rumination on the importance of "trial and error in successfully integrating the arts." She explained that "By doing the workshops, we learned what did and did not work. We also learned what could possibly work, like including new ideas that we got during the reflection part during our workshops." Anna's ability to learn about learning through performative embodiment, from *her* embodied experience of leading a workshop that uses performative embodiment to engage in reflective and reflexive learning, demonstrates the value of a reiterative approach to learning (i.e., triple loop learning) in the course design.

Anna's post-course interview included numerous personal discoveries about how she learns: "After taking this course, I now realize that learning through the arts is more enjoyable than reading from a textbook. I did not notice before, but I also retain the information better and for longer periods of time when I am taught through the arts." Her post-course interview also revealed an awareness of the sociocultural aspects of creative learning often referenced in the creative teaching literature:

> I learned a lot about myself in this course. But the most important thing I learned was how to respect others. I always felt respected, and I always knew respect was asked of me. When you're in such an active, creative environment things can get serious, so I think the class as a whole managed to learn [how to respect] a little more than before.

Anna's discoveries about the importance of "respect" in "active, creative" learning environments align with sociocultural research from the drama/theatre education field (see e.g., Dawson and Lee 2018; Edmiston 2014). For individuals like Anna, who identify with "hardship" (Recipe for Me) and who feel their "unseen knowledge" (Arts in our World) has been marginalized by others, a learning environment where they "felt respected" can improve the quality of the learning experience.

5.4.3.2 Arts-Integrated Learning Experience and Reflection: Cross-Case Discussion

The focus of Module Four is about "learning how to learn." The students' facilitation plans, take-home final reflections, and final post-course interviews include multiple examples of students making connections between the dialogic meaning-making process of embodied learning and their professional and personal identities. For example, Tess gained insight into the instrumental uses of the body in learning through her focus on improved productivity as a student and business person. Kate's discoveries on the limitations of the educational system led her to see a new range of possibilities for her work with youth outside traditional classroom spaces. Anna's discoveries about the body in learning enabled her to understand her kinaesthetic learning style, to clarify her beliefs about just and equitable education, and to increase her sense of belonging as a first-year college student.

In this study, I explored the use of performative embodiment within a developmental learning process (Argyris and Schöen 1974, 1978) to define an explanatory typology of factors about how students conceptualize learning in an arts integrated course for non-majors. Research into post-secondary teaching and learning contexts suggests a strong correlation between how students are taught (pedagogy) and the quality of students' learning. Data suggests that students' learning in FA 308 was shaped by their sense of belonging (Anderman 2003) and their personal connections to the course content and materials (Buskist and Saville 2001). Pedagogical approaches that used elements of performative, embodied learning and reflection helped all three students make personal connections with their colleagues, and understand more about their own learning styles in relationship to the arts in education. They all gained insights into "learn[ing] how to learn" in and through an embodied creative process by the end of the course. However, each student had their own journey. Each student's complex identity and prior experience with education and the arts shaped how they engaged with the course and their reflective and reflexive experience with/in the course content and assignments.

5.5   Conclusion

In the final paragraph of her written take-home final, Anna chose to reflect on the opening day of the course:

> When I first enrolled in this class, I did not know what to expect. The first day of class I remember we were asked to draw a line that represented how we were feeling that day, so I drew a movement, and I remember I felt so lost, but I thought to myself "don't think, just do." I kept that line in my mind for the rest of the semester. I felt the only wrong answer was simply just not having an answer, so I always tried to have an answer and I do feel that I accomplished this.

For many students in FA 308, performative embodiment offered a continual invitation to engage, even when the student felt "lost" or was struggling to find the "right"

answer. It has been argued that learning is enriched through sensorial and lived experiences (Dewey 1938; Merleau-Ponty 2002) and that a corporeally centered pedagogy can invite a more democratic participation and creative energy into the learning process (Berdayes et al. 2004). This study's findings suggest that performative embodiment served as a catalyst for learning in FA 308; performative embodiment provided a dialogic, multimodal way for students to explore personal creative expression, to tinker with relevant ideas about arts and education, and to consider—through verbal, written and embodied formats—their discoveries. Students' nascent explorations in the course also provided crucial learning about the nature and possibility of performative embodiment in creative teaching. Findings suggest that when students are encouraged to dialogue through the *active* and *creative* tools of drama/theatre they "broaden [their] current conceptions of creativity by recognizing that the intrapersonal insights and interpretations, which often live only within the person who created them, are still considered creative acts" (Kaufman and Beghetto 2009, p. 4).

Elizabeth Ellsworth in *Places of Learning* (2005) posits that if we ask students to focus on the "means and conditions" of their work and give them the important opportunity to consider how the "environments and events of knowledge in the making exist in [our labor] as learners," then we open a new world of pedagogical possibility (p. 3). The use of performative embodiment in an arts integration course offers a place of learning that invites participants not only to imagine a better world, but also to actively question, embody, and enact how a better world, of their own design, gets made.

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Chapter 6
Creativity, Intimate Publics and the Proxemics of Pop Up Poetry Performance

Anne Harris and Stacy Holman Jones

Abstract While developing and nurturing creativity is increasingly a centerpiece of economic, cultural and arts policies, notions of what creativity is in an educational sense remain problematic to both policymakers and to the educators who seek to define, measure, and nurture it in their environments. In this chapter we use current research on creativity in education to highlight the ways performance and drama education currently approach the teaching and learning of creativity. We consider a recent relational 'pop up poetry' performance that embodies a kind of 'one-to-one' applied theatre that draws everyday audience members into *relationship* with the public poet, and in so doing creates a 'politics of encounter' which offers creative, pedagogical and political opportunities for social change. Such methods ask us to reconsider our ideas about the role of creativity in education contexts by claiming public space as a classroom and using performance encounters as creative rehearsal for social change. The 'intimate publics' created in such performances engage participants in a person-to-person encounter marked by collaborative learning and creative activism and citizenship.

6.1   Overview

While developing and nurturing creativity is increasingly a centerpiece of economic, cultural and arts policies, notions of what creativity is in an educational sense remain problematic to both policymakers and to the educators who seek to define, measure, and nurture it in their environments. In this chapter we use current research on creativity in education to highlight the ways performance and drama education currently approach the teaching and learning of creativity. We consider a

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Fig. 6.1 'Choice,' pop up
poetry performance, 2017

recent relational 'pop up poetry' performance that embodies a kind of 'one-to-one'
applied theatre that draws everyday audience members into *relationship* with the
public poet, and in so doing creates a 'politics of encounter' which offers creative,
pedagogical and political opportunities for social change. Such methods ask us to
reconsider our ideas about the role of creativity in education contexts by claiming
public space as a classroom and using performance encounters as creative rehearsal
for social change. The 'intimate publics' created in such performances engage par-
ticipants in a person-to-person encounter marked by collaborative learning and cre-
ative activism and citizenship (Fig. 6.1).

6.2   Introduction

Theatre and drama in education enjoy and celebrate a long history of effective and
affective pedagogical and curricular innovation, as other disciplines have noted
when borrowing drama and performance techniques for diverse curriculum areas
(Gallagher et al. 2017; Harris 2016b, 2015a, b, 2014; Sinclair and Harris 2016;
Nicholson 2015, 2009; Harris and Sinclair 2014; Gallagher 2007; Heathcote and
Bolton 1994). Yet contemporary creativity theory has boomed and diversified in a
landscape still almost absent of education practices and discourses. Creativity edu-
cation research is still an emergent area, in a form which is decoupled from solely
an 'arts and creativity' approach and newly framed as a interdisciplinary or almost
non-disciplinary core component of any effective twenty-first century curriculum
and workforce.

Current global economic and educational concerns have ignited a proliferation of
approaches and discourses for apprehending and understanding creativity. Globally,
education policies continue to ascribe fairly traditional performance criteria, tests
and performance targets that at times contradict creativity education curricula (in
Australia, the UK and in the American Common Core). While creativity increasingly

plays a 'push factor' role in developing and understanding economic, cultural and arts policies, notions of what creativity is in an educational sense remain problematic to both policymakers and to the education sectors that seek to lock it down, measure it and nurture it in their environments.

A growing body of international research shows that educational practices (including pedagogy but also institutional structural practices) can promote or impede creativity within creative ecosystems that value creative abilities and environments (Harris 2016a; Harris and Ammerman 2016; Craft 2002; Garner 2007). International research continues to shape and inform how creativity is understood, negotiated, and valued. Nations such as China (Leong 2010) and Greece (Aggelakos 2007), as well as England, Wales, Northern Ireland, Scotland and European Union nations (Creative Scotland 2013; European Parliament and the Council 2006) now increasingly include and highlight creativity in their core skills and capacities (Cachia and Ferrari 2010; Heilmann and Korte 2010). Policy and vision statements such as the Welsh government's Action Plan *Creative Learning through the Arts* (2015–2020), and the Australian government's *Melbourne Declaration on Educational Goals for Young Australians* (which sets educational priorities for the first 10 years of schooling) have committed to developing 'confident and creative individuals' through appropriate educational strategies (Ministerial Council for Education, Early Childhood Development and Youth Affairs [MCEECDYA] 2008), including arts and creative approaches. Studies on creativity in education (Creative Partnerships UK 2012; Council of the European Union 2009; European Commission 2010) argue the need for context-specific and individualised practices and tools for enhancing and measuring creativity in schools, all emergent approaches that prioritise an 'ecological' or whole-system and networked approach over more traditional cognitive and giftedness approaches to understanding creativity in students/education.

Over the past 25 years, the language and social impact of Creative and Cultural Industries as a field has evolved significantly: First, in response to Richard Florida's 'creative economies' approach, Ken Robinson posed the now ubiquitous question 'Do schools kill creativity?' In response, Anna Craft and colleagues developed 'creative education,' a more integrated and optimistic approach to the role and place of creativity in educational spaces (Hunter 2016; Craft 2015; Craft et al. 2013; Walsh et al. 2017).

This chapter draws on recent research in the creative education landscape (Harris 2014, 2016a, 2017) to consider how creativity theory can be put into action within applied theatre and drama contexts. In particular, we consider a recent improvisational and relational 'pop up poetry' performance that embodies the ethos and techniques of creative citizenship. This performance joins the contemporary proliferation of 'pop up' arts and commerce spaces with renewed interest and call for public creation and sharing of poetry in post-Trump America. Pop ups put empty or underused spaces to new uses for a finite and often brief amount of time. Artists have long used 'pop ups' as temporary (and free) spaces in which to make performances and exhibit work, including poetry performance (Garber 2016). We argue that emergent and embodied methods such as pop up poetry offer a kind of 'one-to-one' applied theatre that draws everyday audience members into *relationship* with the

public poet, and in so doing creates a 'politics of encounter' which offers creative, pedagogical and political opportunities for social change. Such methods can be used in classrooms to explore the power and accessibility of creativity amongst the uninitiated, and more importantly ask us to reconsider public space and classroom and performance encounters as creative rehearsal for social change. Through the 'intimate publics' created in such performances, a creative citizenship (Harris 2016c) that is shared from person to person offers us new ways of humanising the Other and engaging in intimate collaborative learning. Such one-to-one experiences engage participants in what we have elsewhere referred to as 'slow creativity' and 'creative activism' (Harris 2015a, b, 2016c; Harris and Holman Jones 2014).

In *Creativity and Education* (2016), I (Anne) build on Stanford University's popular *Design Thinking* model and emergent data (Harris 2014–2016) to argue that advancing creativity in secondary schools (and in other contexts including public pedagogies and everyday classrooms) is more a matter of capacitating creative networks or ecologies, and less about giftedness, individual endeavour (by either students, teachers or principals) and any fixed notion of an elusive 'creative curriculum.' And assessment continues to confound: from creativity moving into standardised curricula, to global creativity measures of students which mirror literacy and numeracy exercises, creativity continues to challenge traditional forms of measurement. Wang (2011) enumerates core environmental factors for fostering cross-cultural creativity in educational settings including autonomy, resources, encouragement of originality, and freedom from criticism, as well as explicit encouragement of "independence, self-confidence, self-esteem" (see also Amabile 1996; Bean 1992; Beghetto and Kaufman 2007; Cannatella 2004; Cropley 1992, 1997; Diakidoy and Kanari 1999; Gardner 1988; Torrance 1975, 1992; Von Eschenbach and Noland 1981).

As this study points out, however, autonomy, independence, self-confidence and self-esteem are relational skills and require environmental and other-centered orientations and practice—attitudes and supports that are often absent from educational contexts. Unfortunately, the study confirmed what other scholars including Wang (2011) point out: environments that inhibit creativity are those that utilize test-like activities (Wallach and Kogan 1965), salient rewards, external evaluation, pressure (Amabile 1982, 1996), order and discipline, emphasize individual work over self-control and give less attention to personal ideas (Amabile 1996). Perhaps even more disappointing is the fact that systematic testing and rewards, external evaluation and control and pressure, order and discipline are the hallmarks of the working conditions of most secondary schools today (Harris 2016a).

6.3   Creative Ecologies and Communities

And yet schools remain one of the main places where creativity can be developed and nurtured. Besley and Peters (2013) state that knowledge cultures are based on shared practices of epistemic communities that schools create and nurture, where

knowledge production and dissemination occurs through exchange of ideas between teachers (and, we would add, learners) and domains of knowledge. School leaders play a crucial role in directing and maintaining the way creativity develops, evolves and is valued by teachers and students, or conversely is devalued, dismissed or standardised into oblivion. While school leaders do struggle to imagine their role in these greater networks, as well as their own agency in affecting creative change within their school environments and beyond, there are clear avenues and places in which to foster creative communities and climates.

School leaders and schools themselves foster creative climates by effectively and innovatively organising knowledge ecologies and creating positive relationships that foster the development of the creative skills and capacities now well-documented in contemporary creativity research (Harris 2017). These skills and capacities include curiosity, productive risk-taking, and valuing and rewarding creative thought, practice, and collaboration. Thus, the ways in which learning communities are developed and maintained as creative ecologies (internally) and interdependent networks (externally) are of equal importance with igniting, fuelling and maximising creativity (Chang 2014) and, in turn, for nurturing creative citizenship.

And what is the role of the teacher in such ecologies and relationships? Research affirms the social and distributed nature of creativity through practices of doing, thinking and becoming (Glăveanu 2014) and the expectation of teachers "to act effortlessly, fluidly, to take risks, be adventurous, and to develop pedagogy and classroom creativity in order to develop their own knowledge and skills as creative professionals" (Burnard 2011, p. 51). Creativity research in education in recent years increasingly focuses on teacher practice and cross-curricular fertilization between various subject domains, a positive move toward the inter- and transdisciplinarity of non-education creativity research. This revisioning and realignment of both approaches to and understandings of creativity and its optimal conditions represents a need to re-imagine the ways creativity can be taught and fostered through interdisciplinary structures in educational contexts (Blumenfeld-Jones 2016; Ewing and Gibson 2015).

Nurturing creativity across the curriculum, especially paired with science and/or mathematics, points to a disciplinary flexibility which is arguably creativity's strength. Doing so also opens new ways of accessing creativity. In particular, there is a strong emphasis on reconceptualising art education as a place where the transdisciplinary creative mind could be developed. Seeing creativity as a domain within the arts and through the arts expands its possibilities into a transdisciplinary dialogue, particularly among drama educators. Drama and performance teachers have long understood the power of the inter- and trandisciplinary, given that drama and performance depend on embodied, intellectual and emotional skills and competencies and incorporate technological, spatial, temporal and visual/aural considerations and elements as a matter of course. As Nicholson (2015, p. 10) writes, "Because applied theatre involves making art [and, I would

argue, all performance], it is inevitably associated with theories of creativity." She goes on to argue that in addition to reconceptualizing creativity from an individual and single discipline "gift" to a learnable, transferable and collaborative set of skills, we must reimagine the spaces and places in which creativity is fostered and flourishes. Such reimaginings ask us to transform "highly regulated spaces" into "creative performance and workshop spaces" (p. 10). Indeed, bodies in space (temporal/spatial relationships) are at the heart of both performance and the conditions for creativity. In the next section, we consider how drama and performance, particularly applied theatre, use multi- and trans-disciplinary approaches to transform highly regulated spaces into spaces where the skills and capacities of creativity flourish. In particular, we consider a case study of a one-to-one performance event as a mode of engagement that fosters not only creativity and collaborative learning, but also a space of creative activism that can work for social change (Fig. 6.2).

Fig. 6.2 'Truth' and 'Ayiti,' pop up poetry performance, 2017
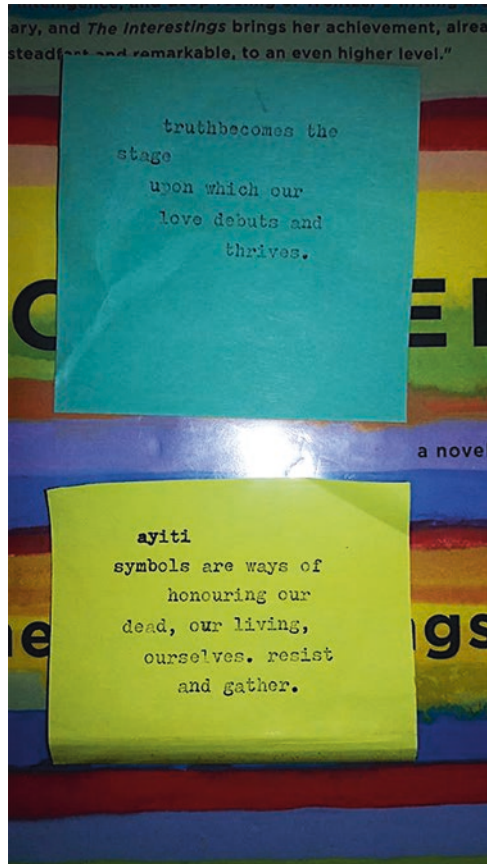
6.4   Case Study: The Creative Power of Intimate Performance and Pop Up Poetry (Fig. 6.3)

6.4.1   Pop Up Poetry, Creativity and Proxemics

Pop up poetry can function silently between strangers, wherein sometimes a poet will just leave a sign that says 'Poems, $1' and passers-by receive a random poem after tossing a dollar into the 'hat.' Our version was more interactive and relational, adopting the ethos and character of applied theatre work by drawing from the participants' own experience and in engaging in participatory performance practices. However, where participatory processes in applied theater most often involve groups of community members, stakeholders and 'audiences' who are involved in the creation and in some case performance of the final 'works,' in this performance we engaged with participants one at a time. This approach allows us to shift both the terms and the anticipated 'outcomes' of the audience-performer (or facilitator-participant) exchange in applied theatre—a process and event designed by the performers/facilitators in which participants/audience members are meant to take part. In our version, passers-by offer one word from which we make a poem in one minute or less. Sometimes participants want to remain, ask for additional poems, or want to use additional words. Sometimes they try to stump us; sometimes the words are surprisingly emotional. Always there is an attachment on the part of the participant to the word he/she provides as 'raw material' for the aesthetic encounter. Nearly always there is joy and pleasure in the receiving of the poem, and the experience of 'taking something away' from the creative encounter—not only the finished poem but the experience and memory of the embodied exchange between 'performer' and 'audience' member.

Fig. 6.3 Harris, pop up poetry performance, 2017

What can a performance approach as whimsical, peripatetic and intimate as our pop up poetry performance project tell us about creativity more generally, and the ways in which it teaches and helps learners? My (Anne's) work, along with the work of other contemporary creativity scholars reminds us that "…theatre—like education and any other tool of cultural production—is always context-specific and historically contingent. Creativity is equally so, suggesting that the pervasive current search for an absolute commodification or definition of creativity" is misguided, if not pointless (Harris 2014, p. 55). Our attention to, and obsession with the order and instrumentality of creativity is itself characteristic of the zeitgeist of our times.

Cultural anthropologist Arjun Appadurai's (1996) formulation of the social imaginary is comprised of five dimensions or 'scapes' (ethnoscapes, mediascapes, technoscapes, financescapes, ideoscapes), which through their fluidity together instrumentalise the global flow of ideas, practices and goods. Through his social imaginary, the changing social role of creativity and its discourses can be understood, in which the commodification of creativity itself creates newly imagined communities (in other words, social imaginaries) that are not solely organized around the interests of capital, innovation, and 'fundability' (Harris 2014). In a nearly-ubiquitous discourse of creativity as entrepreneurship and innovation, Appadurai's social imaginary offers a different role for creativity, one that is intimate, transmitted through sociality rather than capital. Viewing creativity as creating newly imagined communities affords us a vantage point through which we might interpret pop up poetry encounters as an antidote to rote enactments as well as an enactment of Appadurai's mediascapes, where both DIY and digital media are performed simultaneously, person to person rather than remotely or virtually.

Pop up poetry can be considered a kind of applied theatre that connects the everyday and social (inter)action to drama. Here we draw on Nicholson's articulation of applied theatre as "principally concerned with how the aesthetics of drama, theatre and performance might make a difference to the social patterning of everyday life" (Nicholson 2015, p. 133). By inviting a seemingly-superficial 'encounter' between two strangers, pop up poetry unsettles the dominant mode of superficial exchange and replaces it with what often evolves into an intimate, aesthetic, and surprisingly creative one-to-one experience that disrupts the 'business as usual' of everyday work and learning environments, including theatre. For applied theatre scholarship, such encounters rely on an intimate proxemics that embody both temporal and spatial alterations. Such encounters enact a new way of "thinking about creativity environmentally—as integral to everyday, vernacular creativity—[that] provides a basis for discussion about how places are reinterpreted and reproduced over time…." (Nicholson 2015, p. 133). In this way, our pop up poetry performance has the potential to creatively alter, reframe and remake spaces and relationships. Might other entrenched relationships such as teacher/student, teacher/principal, preservice teacher/teacher-educator be opened up through the ephemeral and intimate performance encounter, transforming public spaces into classrooms?

While drama and theatre performance returns us to the body, to the ineffability of corporeality itself, contemporary creativity tries to minimise the need for bodies at all: "…both Benjamin and McLuhan articulated that the influence of mechanical

and technological reproduction of arts on social ways of knowing and being [is] useful to us in understanding today's creative turn toward innovation and commodification…" (Harris 2014, p. 148). Understanding some aspects of contemporary creative global flows provides a backdrop for understanding the ways in which a 'proxemics' performance might be useful in disrupting these commodification impulses.

Proxemics in performance is interested in the distance, or proximity in physical space between what we typically consider to be 'performers' and 'audience members' and how that distance impacts on the nature of our 'encounter' with one another in drama and theatre contexts. The degree of physical distance between performers and audience members governs not only what kinds of exchanges can happen between participants but also what impacts those exchanges have on contexts outside of the performance event or space. In other words, proxemics in performance asks about the nature of audience-performer relationships as well as the effects of such experiences—asking us to pay increased attention to the lived experience of the everyday, the importance of touch and connection and the political possibilities that develop from the ground up, person-to-person and body to body (Hill and Paris 2014).

Considerations of proxemics in performance are drawn from anthropologist Edward T. Hall's (1966) 'science of proxemics,' which builds on studies of animal behavior to categorize human exchange in terms of the distances between people and the importance of all of the senses (and not just the visual) in our perceptions and valuing of space and place. Hall (1966) divides our understandings and use of space into 'proxemic zones' that move inward from public space (12 to 25 feet or more of distance) to social space (4 to 12 feet of distance), to personal space (1.5 to 4 feet of distance) and intimate space (less than 1.5 feet of distance). Traditionally, the fixed space of the theatre instantiates a public proxemics space, which limits not only the visual and aural field of the audience-performer encounter but also eliminates the other senses—touch, smell, sense of heat and temperature from the field of experience and mutes audience response. Smaller theatres increase the visual and aural and sometimes haptic experience of the audience-performer exchange. It is rare, however, that personal space—in which not only the visual powers of perception are heightened, but smell and touch are also brought into play—is shared in theatre contexts and rarer still that they share intimate space (Hill and Paris 2014).

The traditionally 'public' space of theatre and performance also maintains what might be considered traditional relations of power and action where the performers or actors on stage are elevated, vocal and active and audiences are seated, silent and passive. Altering the proxemics of the audience-performer relationship shifts the power boundaries and dynamics of both audience and performer (Hill and Paris 2014). When we transform the highly regulated space of the theater by bringing performers and audiences closer, we increase the chance for exchange and also risk. Why? When a performance enters personal and intimate space [it enters] the realm in which our 'fight or flight' responses are triggered (Hill and Paris 2014). Here, the status differences between performers and audience members become equalized if not flattened; both performers and audience members have more 'at risk' in the

personal if not intimate encounter and perhaps by extension, more investment in the outcome of the exchange and a more detailed and multi-sensory memory of the experience that persists long after the performance ends (Hill and Paris 2014).

In addition, we remember, understand, and perhaps 'learn' the performance experience differently. When we experience a performance in the 'public' space of a theatre or performance venue, our memory of that experience is that of a witness—we witness others in a skilled recital of a piece of music or a rehearsed performance of a play (Hill and Paris 2014). To connect this aspect of performance to our earlier discussion of creativity, we might say that we witness the individual (and often elite) 'gift' of the performer—and we marvel at that gift not as something we might also possess or participate in or with, but as something that is outside of us and the reach of our learning. However, when we encounter a performance that takes place in personal or intimate space, we do not remember, understand or learn the experience as witness, but instead as something more akin to 'real life'—an event that happens to and with us (Hill and Paris 2014). In other words, intimate performances are events that happen to and with us as part of the flow of our lives and not something we watch happen to/for others from the outside (Hill and Paris 2014). If we think about intimate performance in terms of the discussion of creativity in the first section of this chapter, we might say that we experience the performance as a creative capacity or skill—an occasion in which curiosity, productive risk-taking, and recognizing and valuing creative thought, practice, and collaboration are embodied.

Interest in immersive, encounter-based and intimate performance has flourished in the last decade or so. Why? Possible answers include the desire of audiences to claim some agency and participate actively (rather than as passive spectators) in the experience of theatre and art. Or seeing theatre as an encounter that meets the needs of an increasingly 'touch hungry' society in equal response to the rise in mediated social lives (and the attendant reduction in 'social tactile interactions')' (Gallace and Spence 2014; Machon 2009). Or our need to create contact and a sense of community with others—a mechanism for forming a 'rapid response' community—a network of people to whom you can turn in moments of need and crisis. Whatever the answers (and there are surely others), the interest in and the needs we seek to meet though intimate performance parallel interest in and the rush to quantify and 'harness' creativity in education spaces and in our lives. Intimate performance, like creativity, can be standardized, instrumentalized and commodified, but it also resists that kind of rote packaging—forming a new 'imaginary' and politics of encounter in Appadurai's terms. Indeed, Paris (forthcoming) echoes Appadurai's and Harris' optimism about the creative flow of such performance encounters:

> Under the grim shadow of neoliberalism participatory performance could be seen as the self actualizing of the individual over the social. Yet, at the same time it can be argued that there is something implicitly positive in the political nature of small audience work. It is work that pays attention to the individual, focuses on the epic in the everyday and the extraordinary in the ordinary.

Like creativity, intimate performance is an encounter in which performers and audience members both teach and learn and are outward-moving as well as inward-receiving, social as well as personal and intimately relational.

Further, the characteristics of intimate performance—the leveling out of status differences, the risk-taking and collaboration required, the multi-sensory field of experience engaged and the relational and collaborative nature of exchange—provide us one method for putting creativity theory into action in the classroom. And given the 'real life' quality of the experience, such performances are indeed able to create a 'politics of exchange' in which we carry the happenings of the performance into other contexts in which we can work for social change, including the transfer of the 'live' encounter to virtual spaces. In the pop up poetry performance, participants not only shared their 'finished' poems on social media but also made a call for others to come to the encounter through these channels. These online calls for participation created a kind of 'virtual proxemics' in which the hyper-public space of the internet was used to initiate an ever-widening circle of live one-to-one encounters.

6.4.2 Applied Theatre and New Performative Socialities

In our most recent staging of this performance, we were given both mundane and profound words: fog, luscious, memory and autumn, along with *niggabitch*—offered by an African American woman to Anne as a white woman (the word offering was preceded by the question of whether she was allowed to give any word at all, and give it anonymously); *ayiti* on Haitian flag day from a Haitian woman (who spontaneously and emotionally jumped up to hug me [Anne] when she read her poem) as well as *truth, justice, and love* (Fig. 6.4).

As intimate encounters, the exchanges with audience members in the pop up poetry performance ask us to acknowledge and bridge contemporary conditions

Fig. 6.4 'Luscious,' pop up poetry performance, 2017
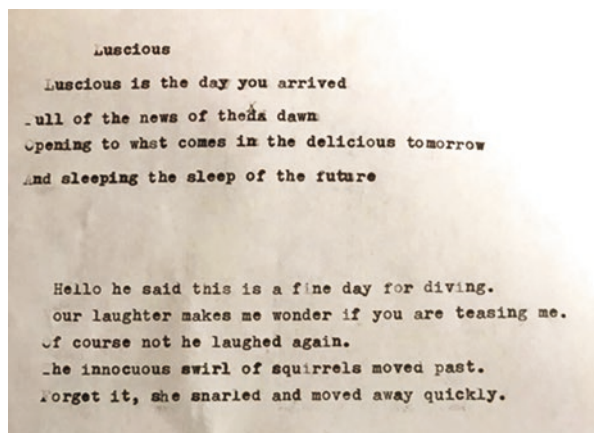
such as isolationism, individualism, ecological disengagement and the search for love and to embrace the everyday need we have to connect and relate to one another, outside and inside theatrical experiences (Harris and Holman Jones 2016). Unlike prescribed or formulised creativity, the pop up poetry performance created a kind of unexpected intimacy, one that might work to dismantle the kinds of everyday walls and self-judgement and self-consciousness that keep 'regular people' from being creative, or expressing that creativity or a delight in it. As Nicholson reminds us,

> Creative spaces are those in which people… feel safe enough to take risks and to allow themselves and others to experience vulnerability. It is creative moments of transition which enable participants to move out of restricted spaces – literally or symbolically – and beyond identities which are fixed and codified by particular ways of thinking or spatial practices into new forms of social identification and improvisation. (2015, p. 133)

In addition, poetry—and public poetry in particular—has a political currency and agency lately that has not been felt since perhaps the 1960s. At a 2017 March for Science in the United States, poetry found a central place alongside humourous and compelling visual creative activist tools such as signs and puppets. The march ultimately featured pop-up poetry writing workshops, as well as banners with science poems (Alter 2017). At marches, like other public spaces such as the conference/s where we have performed, poetry has a special ability to cut through the 'creative/not creative' binary, drawing people into sharing their stories, emotions, creating connections, as well as 'being creative' without anticipating (and therefore blocking) it.

It is no accident that poetry is becoming a central part of public (and improvisational) activism. As Alter notes, "poets, scholars and publishers say the flood of protest poems after the 2016 [American] election stands apart from earlier eras in both its quantity and intensity and its stylistic and thematic diversity" (2017, n.p.). Examples of this kind of urgency are driven by public need. For example,

> In November, a few days after the election, the Academy of American Poets and the online publication Brain Pickings organized an "emergency" pop-up poetry reading in Washington Square Park in New York, where hundreds of people gathered to hear 20 poets, among them Patricia Smith and Elizabeth Alexander." (Alter 2017)

She also notes the ways in which poetry is blurring online/offline worlds, writing "Poets are using social media to respond quickly to the news, posting new verses online" (Alter 2017).

One reason for this timeliness is due to its short form and inherently dramatic nature: poetry is emotive, collective, dialogic, and quick—exactly the characteristics needed to move creativity in education forward, and to break free of the institutional and standardisation shackles which have held it back. When the drama and urgency of poetry is joined with intimate performance's ability to help us take risks with one another, we open up a space in which to experience creativity as a process of encounter. Creating poetry together in public spaces allows us to create poetic counterpublics through the politics and proxemics of encounter. In this way, the one-to-one collaborations of each pop up poetry encounter create an 'intimate public' in which creative approaches to personhood, community and citizenship are opened up (Hickey-Moody 2014). As one-to-one applied theatre, forms such as the

Fig. 6.5 Holman Jones, pop up poetry performance, 2017

pop up poetry performance offer us new ways of humanising the Other and engaging in intimate collaborative learning for social change, or what we have elsewhere referred to as 'slow activism.' Slow activism typifies the nuanced, small or quiet approaches to contemporary labour that are often overlooked or undervalued by imperatives of big data, scalability and globalisation. For us, performance encounters in scholarly contexts return the participants automatically to the body, to relationship, and to the power of scholarship to have 'real-world' impact.

Our experience with pop up poetry performance teaches us, as Nicholson (borrowing from Henri Bergson) says, "that creativity is a process that is 'going on, all the time, in the circulations and fluxes of the materials that surround us and indeed of which we are made'" (Nicholson 2015, p. 132; see also Hallan and Ingold 2007). What better way to practice creativity skills and capacities, then, than through contemporary, processual, and collectivist pop up performances, one pair at a time? (Fig. 6.5)

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Chapter 7
Reforming Theatrical Education from Its Extrovert-Based Model

Rob Roznowski

Abstract Through an examination of introversion in relation to theatrical teaching methods, educators may begin to augment their current practices to create a more inclusive creative classroom. Traditional and accepted methods of theatrical education (specifically actor training) rely on principles and constructs that favor extroverted students in their design. The current training practices ask introverted students to perform in extroverted ways that may actually have the opposite intended effect on the student. Offering strategies to transform the standard theatrical models of improvisation and ensemble-building to include introverted students will allow educators to create an equitable actor-training experience that respects all types of learning. With expert interviews (including Susan Cain's "Quiet Schools" program education director, Dr. Heidi Kasevich), instructors are offered tactics to transform accepted, extrovert-based models of theatre-making in order to create a more balanced classroom. These strategies extend beyond theatre and actor training to include ways to augment any classroom devoted to parity in fostering creativity.

7.1   Introversion and Past Teaching Methods

As an actor, I cringed every time the director asked the cast to improvise in a rehearsal. I dreaded theatre games where I was forced to immediately and creatively make large vocal or physical choices to test my ingenuity. I receded into the background when ensemble-building exercises became part of studio time. Knowing my real and deep aversions to such teaching methods, why was I using these same strategies when I began teaching? It was not until I understood my own introversion that I was able to see I was perpetuating a methodology that rewards extroverted attributes. It was then I realized getting student actors "out of their shells" or forcing all students to play long-accepted theatre games held deeper consequences than I had previously considered. I was an introvert teaching in an extroverted model.

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In his article, "Introvert? Extrovert? Tips for a Balanced Classroom," Shawn Thompson writes:

> The simplest way to explain the difference is that introverts are energized by quiet, privacy and being alone or in small groups, and are drained by noise, distraction and crowds. They are oriented toward an inner life. Extroverts are the opposite. They are energized by crowds and stimulation, and drained by being alone. (Thompson 2012, p. 6)

These drastic differences are not habitual but rather genetic. Thompson (2012, p. 6) continues, "The differences begin in biology. The main neurotransmitter used by introverts is acetylcholine, which also stores information during sleep, and there are biological differences in the ways the brains of introverts and extroverts work." While it is clear that introversion is an embedded personality characteristic, what remains unchanged is its relation to some theatrical training, which has been tied to extroverted-based reliance on concepts of rewarded novelty and ensemble participation. In order to create an inclusive classroom that allows both introverts and extroverts to thrive, these two elements, which undergird many of the theatre's most common training methods, may be augmented. While the approaches examined are theatre-based, their universality related to teaching techniques of extemporaneous public speaking, group projects, and other common extrovert-friendly practices certainly extend to any classroom hoping to foster creativity. And while my experiences within this chapter refer to my work in higher education, the strategies proposed can be easily adopted for K-12 or other populations.

In his seminal book, *Psychological Types*, psychiatrist Carl Jung (1923) described and ascribed the earliest classifications of the personalities and qualities of introverts, arguing their stark differences were so obvious as to be easily recognized by psychologist and laypersons alike. Even in Jung's earliest writing, he paints a much healthier and rosier picture of the extroverts, calling them *open*, *sociable*, *serene*, and *on good terms with all the world*. By contrast, the introverts are *impenetrable*, *taciturn*, and have *often shy natures*. The idea of the maladjusted, reserved, and outsider introvert had begun.

The role of the introvert in society was also examined in books like *People Types and Tiger Stripes* by Gordon D. Lawrence (1991), the writings of Marti Olsen Laney (2005), and most recently and ubiquitously, Susan Cain's award-winning writings and wildly popular Ted Talks dealing with introversion and its continued misrepresentation and misunderstanding in society, harkening back to Jung's "impenetrable" descriptor. In her best-selling book, *Quiet: The Power of Introverts in a World That Can't Stop Talking*, Cain (2013) struck a chord with many as she described corporate, educational, and societal structures and practices that put the introvert at a difficult disadvantage.

Cain (2013) describes classrooms (especially in the United States) where the most vocal are lauded for being enthusiastic and are rewarded for their active participation, and where students are asked to work together in groups to create scholastic partnerships where *natural leaders* emerge. These and other educational models favor the extroverted learner, while their introverted colleagues sit quietly in the background, seeking a safe entrance into the educational modes used in some

classrooms. Writing for *Canadian Teacher Magazine*, Shawn Thompson (2012, p. 6) continues, "But it is extroversion that is praised and rewarded in our society, and the classroom sometimes mirrors the social values of society by favoring extroverts, who naturally dominate socially because they are three-quarters of the population and are skillful in dominating socially." Susan Cain (2017) at her website, quietrev.com, offers training programs for educators whose mission is "to create Quiet Schools, which are characterized by an inclusive culture in which everyone is recognized for their potential to learn and lead in authentic ways."

Just as various perceptions of introversion still exist, so too do various perspectives on how creativity can be fostered. Some believe that creativity requires solitude. Richard Capobianco (1988, p. 244) writes in *Psychological Perspectives*, "By now it is well known that creativity requires incubation: a stage of turning inward that has been described as 'introversion.'" Some believe creativity is best fostered in groups in order to build ideas collaboratively with team members, a strategy supported by Cocu, Pecheanu, and Susnea (2015) in their article "Stimulating Creativity Through Collaboration in an Innovation Laboratory." The group mentality favors a more extroverted approach to creativity. Still others believe a combination of introversion and extroversion is necessary for creativity. In *Creativity: Flow and the Psychology of Discovery and Invention*, Mihály Csíkszentmihályi states:

> Creative people seem to harbor opposite tendencies on the continuum between introversion and extroversion. Usually each of us tends to be one of them or the other preferring to be in the thick of the crowds or sitting on the sidelines observing the passing shows … Creative individuals however seem to express both traits at the same time. (1996, p. 73)

While there seems no definitive conclusion regarding introversion/extroversion and the creative process, it is therefore important to allow various entrances to the process in order to create a truly inclusive creative classroom.

Despite the growing understanding of the needs of introverted learners, there remains a reliance on group projects (in theatre, this is often referred to as "ensemble building") and extemporized public speaking (in theatre, this can be thought of as improvisation) in many classrooms, and while these are proven strategies, they are geared toward the extroverted learner. "There's a growing movement in education to turn … students into non-stop collaborators. This is the effect of the Extrovert Ideal" (Walter 2016, para. 4). The Extrovert Ideal can be described as a place where bold, gregarious, and dynamic learners are rewarded; a place where the loudest voice wins, or students are praised for participation; a place where more introverted learners are singled out by asking them to "come out of their shells" and graded on their active participation. Even educators (some of whom are introverts) are encouraged to become improvisational artists in order to foster creativity in the classroom (Sawyer 2011). These non-inclusive philosophies are especially evident in many iterations of the acting classroom.

I interviewed several experts in their fields regarding introversion in the creative classroom. These experts include: Heidi Kasevich, Ph.D., Director of Susan Cain's Quiet Education wing, which trains teachers internationally to create inclusive classrooms that embrace introverted learning; Troy V. Marriage, Ph.D., Assistant

Professor in the Counseling, Educational Psychology, and Special Education Department at Michigan State University; Laura Ramm, who holds a B.A. in Communication in Theatre Arts, an M.S. in Educational Theatre, and an M.A. in Teachers of English to Speakers of Other Languages; and Sarah Hendrickson, who holds an M.A. in Theatre, is an Instructor of Improvisation at Michigan State University, and has also worked as a professional improviser performing with The Second City. These various experts offered their opinions on how best to rethink a classroom devoted to inspiring individual creativity to assist in augmenting theatrical training and nurture the introverted actor. While they have differing strategies, they all agree that it begins with the inclusive classroom.

In order to address any reformation of current practices, Marriage says we should ask, "'Do we really value the introverts?' Do we really value them because they are easy to miss? They are not management issues. They don't cause any problems. They will sit there and listen all day. Their minds are active, but they don't have the same way of communicating" (Marriage, interview October 19, 2016). In any classroom, but especially acting studios where students may be expected to participate in extroverted ways or forced to be the center of attention in games and exercises, how can introverted students feel valued?

7.2   Introverts and Acting

Many may think that introversion and acting seem entirely at odds. Why would introverts want to put themselves on public display when it seems antithetical to their need for private reflection? Kasevich highlights this phenomenon as surprisingly common among actors (telephone conversation August 20, 2016). Upon deeper examination, the idea of acting and its benefits are a perfect match for the introvert. Introverts enjoy the pre-scripted interactivity available to actors in the rehearsal room. They are also attracted to the safe community created within the rehearsal structure and the pre-planned and regularized scheduling, rules for interaction, and ordered community engagement. The introvert's fertile imagination and love of research are other elements that entice them to the theatre. Introverts are rewarded in theatre by the persistence that is automatically built into the rehearsal process based on the introvert's facility to repeat, craft, and perfect.

Some believe introverts seek a chance to walk in another person's shoes including experiencing elements of extroversion. Some introverts wish to experience the extroverted character/lifestyle for limited durations. Kasevich notes, "Our temperament is inborn, it is biogenetic, yet we can move outside of our comfort zones to the lines where people actually enjoy acting out of character" (telephone conversation August 20, 2016). Introverts get to "live" rich experiences within the rules and safety of theatre.

As is the case with any examination of introverts and extroverts, each person, no matter their classification, has unique elements that may contradict their natural

inclination. While it is not fair to generalize the extroverted actor as an attention-seeking crowd-pleaser who lives for the time in the spotlight; so must it be true that the introverted actor is not the painfully shy bookworm who recedes into the corner. When it comes to the craft they are passionate about, all cases are unique and allow for *ambiversion* (elements of both introversion and extroversion) or even opposite classifications or behaviors. Therefore, the extrovert can delve quietly into research or the introvert can command the spotlight. It depends on the situation. And the training.

While the reasoning for introverted actors to enter this public profession may begin to make sense, the methodologies used to train those introverts as actors are where many of the challenges lie. One Quiet School contributor comments, **"**Unfortunately, there is a culture of extroversion that surrounds speech, debate, drama, and other similar activities. That's not necessarily a bad thing by any means, but it breaks my heart when I see other introverts join these activities for a few days and then quit because they fear the dominant extroverted personalities around them" (Pappas n.d.). The idea of theatre as extrovert-biased is also mentioned by Lauren Smith (2015) in her article, "The Introverted Teaching Artist: (Quietly) Celebrating All Learning Personalities" where she writes, "Drama activities seem, in many ways, like an extroverted student's dream. They involve movement, kinesthetic engagement, vocal expression, and group conversation, all elements that speak to extroverted students' personalities and learning styles" (para. 3).

Many theatrical training methods are highly verbal and rely on immediate invention that places the introverted learner at a distinct disadvantage. In *Rethinking Classroom Participation: Listening to Silent Voices*, Katherine Schultz (2009) examines ways to restructure the classroom and accommodate all types of learners. She also advocates for a reexamination of the word "participation." In theatrical and creative studios that demand participation and teamwork, new ways of assessing investment from the introverted learner are necessary. In the theatre classroom, the attentive yet silent actors may be just as participatory as their verbally engaged counterparts. Silence in the theatre classroom may be valued.

Two of the most widely used elements of theatrical training – improvisation and ensemble building – are skewed heavily toward the extroverted actor. In the following examination, we will look at the most basic forms of improvisation (word-based and immediate exercises) and ensemble building (physically-based team collaborations). For non-theatre educators, these two methodologies may be thought of as extemporaneous verbal participation and group projects. In a truly inclusive acting studio, standard practices in theatre can be rethought so that all may participate in the classroom and be given a chance to be creative in the manner most appropriate to their way of learning. Ramm agrees, noting that, "Activities like improvisation and ensemble building should include both derivative and original aspects. New questions. New management … fostering creativity is creating an environment with push/pull. You want a classroom with balance. Enough balance to not ignore the introvert" (Ramm, interview August 24, 2016). In the following sections, strategies to augment these approaches are offered.

7.3   Reframing Improvisation

One commonly used theatrical training method may actually have the deepest negative impact on introverts: improvisational exercises. Improvisational exercises are most easily described as unscripted presentations of an exploration of characters or themes through various games or structures. These improvised games and exercises are designed to reinforce in actors the necessary skills of listening and responding, playing with another (or others), or to stimulate creativity within theatrical training. The exercises have been highly successful for decades. Viola Spolin first published these ideas in 1963 with her seminal book, *Improvisation for the Theatre: A Handbook of Teaching and Directing Techniques*. One of the core missions of her teaching, spontaneity, seems at odds with the introverts' need for preparation. While improvisation is mostly theatre-specific, it translates to non-theatre classrooms in moments when introverted students are unexpectedly asked to speak extemporaneously or called on despite not having volunteered.

There are several issues related to why improvisation does not favor the introvert. In most cases, improvisatory exercises usually allow no time for the preparation so desperately needed by the introvert. The unscripted design forces the introverted actor to respond in highly verbal ways that require immediate interaction rather than allow for other forms of communication that an introvert might prefer. Most important, the raised level of anxiety in the introverted actors immediately removes them from the major learning goals of the exercise. Introverts are tasked with allowing the free flow and verbal exchange of ideas, but most likely, their learning is filtered through an extra layer of fear specifically related to introversion. This fear can paralyze even the most facile actors. Marriage states, "Understanding the nature of the underlying 'fear' seems important. I would think that social anxiety, the risk of humiliation and embarrassment, the stress of processing information so quickly without reflection would be the major fears" (interview October 19, 2016). Improvisation itself is based on the unexpected novelty of created interaction with another. The fear is unavoidable, as Kasevich notes: "[Fear] goes right to the biochemistry phenomenon that we call introversion. The site of the nervous system that gets activated will be linked to an avoidance impulse around novelty. Literally a fear factor will take over; it's hard-wired into who we are" (telephone conversation August 20, 2016). Fear is a natural reaction that requires understanding and empathy from instructors.

Should improvisation be ignored as a training model? Certainly not; but introverted students can be made aware that their safety is part of the improvisational structure. If introverted actors understand their safety is a priority, they can begin to invest more deeply in these exercises. Marriage states, "Safety seems most important. The way to improve is through success. We have to find a way to open the door to that first experience and then reinforce and support the actor, so the likelihood of that behavior increases" (interview October 19, 2016). Understanding the high probability of stress and anxiety induced by public, unscripted performances, especially in the first round of improvisational experimentation, seems a necessary element to inclusively explore such work for the introverted actor.

Other elements to creating a more inclusive approach to improvisation include stronger guidance and understanding of the rules of each exercise. The introverted actor may achieve more success when offered clearer parameters and mentorship through the exercises. Hendrickson agrees, stating, "[Introverted actors] may be allowed to thrive within the structure of these games. These games are never done without form. How these improvisers process and use all of the rules allows them to succeed" (email July 6, 2016). A keen framing and understanding of the rules requires the educator to offer structured and monitored improvisatory experiences where obeying the order and structure of the games is of the utmost importance. That may mean offering written explanations to exercises rather than only verbalized instructions. It may mean offering more examples or longer practice sessions. It may mean stepping in to guide the exercise when an overwhelmed introvert needs assistance or when an overzealous extrovert needs to share the spotlight.

The onus on educators to transform these traditional games for the sake of inclusivity necessitates a reframing of their role from teacher to advocate for all types of learners. Some elements related to such a reframing include a closer monitoring of extroverted dynamics within scene work where the, "louder, faster, funnier" Extrovert Ideal is often rewarded and overshadows the contributions of the introverted other. It is also necessary to closely monitor the natural cacophony of such events where the pace and volume of ideas, jokes, and repartee tend to highlight extroverted actors. Instructors can be more aware of the necessity for pre-planning that introverts require by letting students know which games will be played in the next class, or at the very least, providing a list upon entering the studio of exercises to be covered that day. Hendrickson adds, "This need for preparation is one reason why an improv ensemble will decide on a running order of games before their show. It allows the various performers time to prepare in the way that is best for them" (email July 6, 2016). Although preparation and improvisation may seem oxymoronic, a deeper understanding of the process, structure, and themes for the class may allay some introvert-based fears.

Another way to look at the same issue of preparation within improvisation is the "Long Runway" method. Kasevich describes it as, "Literally thinking about an airplane taking off on a longer runway, particularly when confronted with novelty, as it creates a sense of ease and comfort in trying to embrace the novelty" (telephone conversation August 20, 2016). This perspective reinforces to introverted students that preparation will be part of the classroom structure and that the expectations are important. This helps to even the playing field for introverted actors confronted with the novelty of improvisation. Kasevich (telephone conversation August 20, 2016) likens the new structure to a flipped classroom model where the typical lecture and homework structure is reversed. Giving the students an evening where they research the rules of the game and watch players in video examples and begin to understand the process may relieve some anxiety in relation to novelty.

Kasevich (telephone conversation August 20, 2016) offers another strategy that may be antithetical to improvisation but would actually allow both introverts and extroverts a chance for silence prior to their work. She suggests normalizing what she calls "the reflective pause"; she explains: "Give time for each student to think

silently, or write something before they have to get up and do their skit, rather than immediate immersion" (telephone conversation August 20, 2016). This strategy is not just for improvisation but can be augmented for any aspect of actor training or creativity enhancement within any classroom. Kasevich continues, "We have teachers from all over the country calling our organization. And I think it takes time for any educator to build this reflective pause into classroom culture, and for the kids to get it too. So it's giving everyone in your classroom time to think before they have to act" (telephone conversation August 20, 2016). Despite the irony, the old adage, "Think before you act," seems entirely necessary. In an improvisational classroom, the reflective pause would follow an explanation of the rules of the exercise so that students may process the information to examine the sometimes-complex nuances of the structured activity.

Hendrickson (email July 6, 2016) also advocates for an understanding and allowance of the introverted actor to hang back. She notes that introverted actors should be supported in participating within their own levels of comfort and allowed to come into the exercise at their own pace. Gone are the directives from instructors that, "Everyone must go in at least once before we move on." In the improvisational model for a classroom that recognizes introversion, the instructor makes it clear that not everyone needs to perform in an upcoming improvisational exercise while also making the rules explicit. An inclusive classroom requires of everyone an empathetic understanding of risk and boundaries.

There are other strategies to assist the introvert in relation to the impromptu aspect of improvisation. Teachers can allow students to initially practice their improvisation without an audience. By doing so, students may gain trust in their partners and the game, experience freedom from "judgment" and bravery to risk more fully. Students may also take time to create landmarks within the improvisation by charting out its dramatic structure. That would include a discussion between partners identifying where the basic plot points will be created, including a written line that will serve as the climax for the exercise. Introverts need the gifts of processing and analysis usually not afforded within these games, and these strategies might reveal a rise in the quality of performance from the frantic antics of some improvisation to a more thoughtful presentation. Kasevich agrees, noting, "For everyone actually, [time] fosters self-awareness, creativity; you might get a product that is better quality in acting [with] a little prep time. 'Time to think' we will call it for introverts" (telephone conversation August 20, 2016).

Ramm (interview August 24, 2016) suggests that we reframe our reliance on verbal-based improvisation by alternating assignments with exercises not strictly focused on creating dialogue. Such exercises might be open scenes (where the actors create the given circumstances but the dialogue is provided), repeated words scenes of just "yes" and "no," silent movement-based improvisations, characterization exercises, or improvising within prepared business. The verbal component of thoughtful and considered speech necessary for the introvert can perhaps be better served within improvisation by limiting or omitting the use of dialogue. Ramm adds, "While creating dialogue is not the only issue, it is an issue. Language is the hardest part" (interview August 24, 2016).

Perhaps with the knowledge of the improvisational shortcomings or adaptations necessary for introverted actors, a new way of looking at improvisation that embraces *backchanneling* (a conversation that occurs alongside another event) can be used. Using technology is a highly successful method of communicational education for introverts. An improvisation can be recorded on video and played back with the participants or instructor discussing the recording. Marriage (interview October 19, 2016) imagines two actors in an otherwise empty room, where a prompt appears on a projection screen telling the actors what to improvise. Their teacher for coaching and guidance purposes later uses a recording of their work. This approach reshapes the behavior of both teacher and student. Marriage explains, "[We move] from Teacher Modeling ('I do') to Guided Practice ('we do') to Independent Practice by Self in Room ('you do') to Practice with a Small Audience ('you do in safe community')" (interview October 19, 2016).

Such a revision of the improvisatory model of the past could benefit from a keener use of technological advances. Kasevich acknowledges as well that, "There are lots of possibilities using technology, as research shows that the more options the introverted learner can have, the better" (telephone conversation August 20, 2016). The improvisatory interactions within social media and technology have endless possibilities, and finding unique solutions through technology can be a strategy for all to succeed.

Another method to allow introverts to thrive is reframing the language related to improvisation to introvert-friendly directives. Hendrickson recalls a freeing moment in her professional work when she was able to reconsider the rules and structure of improvisational auditions to reward introverted skills, noting that, at their core, the auditions were, "all about listening. Being empathetic. Over time, I fell in love with it" (Hendrickson, email July 6, 2016). Such a reevaluation of improvisation away from extrovert-based rewards for invention may allow introverted actors entrance into this training.

Is improvisation a purely extroverted activity? Certainly not. Students can learn that improvisation can reward the introvert in ways other than novelty. Hendrickson states, "Contrary to popular understanding of improv, introverts possess many of the best qualities an improviser can have: being a good listener, paying attention, remembering details, comfort with silence, and playing the moment rather than rushing through details" (Hendrickson, email July 6, 2016). Allowing introverts to understand their strengths in such exercises may be empowering. She continues about the valuable and necessary contributions of the introverted actor: "Since improv is all about ensemble, it's ideal to play with people who don't need to be the center of attention" (email July 6, 2016).

Marriage (interview October 19, 2016) advocates for honesty within the classroom and understanding that some may be better suited for this work than others. He encourages teachers to acknowledge and value the range of diversity within the classroom, pointing out that some students will thrive in improvisational exercises, but this same success cannot be expected of every student. Nor should extroverts be penalized for their love of such work. Marriage also praises the use of clear guidelines, noting that differentiating instruction can allow both types of learners to suc-

ceed. This inclusivity values extroverted ideals, while allowing a frank discussion of the methodological constraints within each exercise. When preparing for improvisation, Marriage notes:

> The extroverts will say, 'Let's go!' But as the instructor, you value the extroverts shining as well as the introverts thinking, 'I'm absolutely frightened to death.' So, you have to create a classroom culture that discusses norms and values that we foster as a community. That is how we live together here, and we have to be more explicit about this range (interview October 19, 2016).

It is important for instructors to create a studio classroom that allows actors to understand the possible issues related to the methodologies used by the learning community.

It is also important to develop a clearer understanding of the philosophical need for such work in an actor's training. What is the motivation for including improvisation within the introverted actors' training? Hendrickson asks, "Is the goal to find exercises that encourage introverts to shine and move past their comfort zones, or to keep them safe and complement their instincts?" (email July 6, 2016). The answer to the question requires careful planning, explicit framework, and clarity of learning outcomes. The answer to this basic question could allow a focused recalibration for the use of improvisation in the classroom.

An augmentation of the extrovert-based model of using improvisation for actor training is suggested to embrace inclusive practices. Through the possible strategies shared, the introverted actor can more readily and openly be part of such training. Such an augmentation relates to any classroom and any educational audience. The importance of time, empathy, parity, and more from the examples above translate to any verbally based assignment where introverts are the focus and tasked with speaking extemporaneously. So while the immediate subject is acting, the strategies are universal.

7.4   Rethinking Ensemble-Building

In his article, "When Schools Overlook Introverts," Michael Godsey (2015) writes, "This growing emphasis in classroom group projects and other interactive arrangements can be challenging for introverted students who tend to perform better when they're working independently and in more subdued environments" (para. 5). Why then do some theatrical classrooms focus heavily on ensemble building, collaborative learning, and group projects? These training methods, while aiming to make a cohesive whole, may actually splinter the group into factions rather than unify diverse learners. While the following examination is related to theatrical ensemble building, the same strategies can easily be utilized when creating group projects in any classroom.

In theory, ensemble building makes sense. Theatre is a collaborative art form that requires a team of actors, designers, and more to work together toward a cohesive whole. The idea that each member of the ensemble is focused on a unified vision or theatrical outcome is a training method embraced by many. The positive

outcomes of working in a group to create a unified artistic or creative product are undeniable.

Those benefits also come with several possibly negative issues related to introverts. Such social activities can be enervating to those within the ensemble, as Godsey (2015) continues, "The way in which certain instructional trends—education buzzwords like 'collaborative learning' and 'project-based learning' … are applied, [they] often neglect the needs of introverts" (para. 2). While the goal of working together is admirable, the methodology used to achieve it may be examined. As many have noted about ensemble building or group projects, there is a need for the introvert to refuel after forced social interaction. As covered in the improvisation section, group dynamics sometimes imply that the more gregarious extroverts can lead a project to the exclusion of introverts without careful guidance. Group projects can also lack the time for private reflection and preparation in cases where the project rules and the team construction are not intentionally inclusive for introverted learners.

The experts agree that in such work, the make up of the team is of the utmost importance. In the article, "Teamwork Satisfaction: Exploring the Multi-Level Interaction of Teamwork Interaction and Group Extraversion," authors Kimberly French and Kottke (2013) examine group dynamics related to extroverts within group projects. They note that when creating groups, it may be wise to first identify introverts and extroverts. French and Kottke suggest allowing students to perform diagnostic tests to identify themselves as introverted or extroverted. Their results further contribute to other similar studies that emphasize "the importance of instructor facilitation when composing and managing groups for moderating the impact of individual, group, and task characteristics" (2013, p. 197). The information related to introversion and extroversion requires careful analysis when composing teams, ensembles, or groups.

Once armed with their diagnostic classification, students may be made aware of the various characteristics of each categorization in order to create healthier ensembles. Students can be made aware of what it means to be introverted and extroverted, and through this deeper understanding and appreciation of the various classifications of actors, truly productive work can occur. Kasevich (telephone conversation August 20, 2016) notes that in order for students to work productively and creatively, they must understand the ways in which they and others work successfully, whether those are conditions of communication, problem solving, social interactions or individual needs. Creating a joint understanding of the strengths and needs of varying temperaments creates healthier collaboration. Acknowledgement and distribution of such complementary strengths can make ensemble-building a richer experience since groups of mixed polarity often create the most successful teams.

The harmonious balance necessary for ensemble building can be regulated through strong leadership from the instructor. However, the instructor needs to take on a role of moderator that can guide and focus students of either categorization when inevitable clashes transpire. Kasevich (telephone conversation August 20, 2016) notes that when conflict does arise, it could be that the introvert feels overwhelmed or the extrovert feels restless. Teachers can be sensitive to whether a group

or individual is over-talking or ignoring certain contributors' strengths and may look for both verbal and nonverbal signs from introverts like body language or shifting eye contact. This way, the educator can advocate for each learner.

For many in theatre, ensemble building can include shared, intense, physical activity resulting in gaining trust from fellow actors. The common purpose of deep commitment and exhausting exercises is thought to lead to an unbreakable bond between members of a group. This approach may actually reward extroverted actors who are energized by those around them, but introverts also have a profound and quieter impact within ensemble exercises thanks to their fortitude and stamina. Marriage agrees, "There are introverts who are marathoners, triathletes, swimmers, cyclists, the full range of activity levels as the population at large. I think we have to … think about a comprehensive assessment of their strengths and weaknesses" (interview October 19, 2016). So, while at first glance introverts may not be as social as the convivial extroverts, their fortitude may be an excellent contribution to physical, activity-based ensemble building.

A more inclusive approach to ensemble building allows for a mix of group and solo activities to truly create a team. Kasevich notes that a "balance between silence and socialization" is the main goal in teamwork and ultimately where "complementary synergy can happen" (telephone conversation August 20, 2016). A more balanced approach to ensemble building is key, with social exercises combined with reflective assignments to create a more inclusive team. The cacophony of ensemble voices should be followed by silent introspection to process the previous exercise. Allowing for various types of responses to group activities seems most important to truly build an ensemble. And, while theatrical team building is the subject of this section, the important strategies of using diagnostics, creating balanced teams, and incorporating careful mentorship are useful for any classroom or level of learner.

7.5   A Test

I decided to follow the advice from the experts and implemented some of their strategies in an acting course I was teaching about comedy. While it was certainly not a formal experiment with control groups and other regulatory practices, I made a few strategic adjustments in my otherwise extrovert-based classroom. I had the students perform personal diagnostic tests which revealed their categorization (introvert, extrovert and ambivert) and had lengthy discussions related to the qualities those categorizations may contain. Using strategies like the "Long Runway," backchanneling, and differentiated instruction (providing different ways to achieve a similar learning goal) I had students pitch, rehearse and present sketch comedy ideas in various ways. The goal was to equalize the playing field for all learners. I gave students instructions several days prior to their pitches ("Long Runway"):

- On the first day of sketch comedy class, you will present five ideas for various sketches—one game show or commercial, one topical, one character-based, one satire or parody, and one based on an outrageous proposition.
- You must use each of the methods below when pitching your five sketch ideas:

Differentiated Learning:

a) Pitch one sketch in written form. Let your partners read your idea.
b) Pitch one sketch by simply talking about it.
c) Record a video version of you speaking/reading about your sketch.

Backchanneling:

d) Pitch one sketch by speaking while also using a group text message or social media.
e) Use a way to pitch your sketch that is not outlined above.

This sort of multi-tiered approach allows all students to join the group project on equal footing. It is also an important step to allow teams to work in new and unique ways. In her journal, one student reflected on the variety of pitching options thusly: "I found it freeing to use the mediums of written and recorded pitches (including a social media group chat) so that I wasn't psyched out by the presence of my other group members. It was interesting to compare these to the standard verbal pitching because I absolutely became aware of my self-judging when I attempted to explain my sketch." The offering of unique ways to present standard work can yield unexpected discoveries for the learner. And while my test was done in a university theatre class, the strategies used and lessons learned are transferable to any classroom devoted to fostering creativity.

French and Kottke assert, "With respect to extraversion, individuals of homogenous groups appear to be more satisfied with their group experience" (2013, p. 197). Since this conclusion conflicts with the opinions of the experts I had been interviewing, I created a small experiment in the same class. I tested the theory of homogenous groups as a necessary component for success. I did so based on a conversation I had with Marriage (interview October 19, 2016) regarding collaborative projects where he noted that, while a mixed group is most traditional in an inclusive classroom, students need to see different group combinations modeled in order to find out how their temperaments manifest within their own groups. With this in mind, I created an assignment designed to test the advice of the experts by comprising separate teams of self-identified introverts, extroverts, and ambiverts. I assigned student response journals, from which I quote below.

The creation process of these comedic sketches ran as expected. So as to avoid competition or stimuli from another team's progress, each team was given a separate room in which to work. The volume level in each room was what one would anticipate based on each group's classification. The extroverts' room was a boisterous and ebullient affair; ideas were shared verbally in an escalating flow of ideas where laughter was key. The introverted team shared their ideas in a quiet and deliberate manner that gave members the spotlight separately. The ambiverts expectedly fell somewhere in the middle.

As the experiment continued throughout several weeks, the creative rehearsal strategies employed by each group were important to observe. The extroverts never wrote their ideas down, allowing for daily rehearsals that brought about some extremely funny moments that were never documented. The team decided their best approach was improvisatory and "off the cuff," as they felt they could come up with increasingly better ideas and lines within each rehearsal. No real leaders emerged, since all had equal contribution. They seemed unfazed by looming deadlines and expected their work to come together for the final public performance. Conversely, the introverts created a balanced approach that allowed them time to pitch ideas and rehearse as a group, followed by time where group members would go to various areas of the classroom to work alone in revising their writing. Because they understood the parameters of the assignment, they were methodical and intentional in their approach in relation to the writing process and deadlines. Leaders of various types emerged related to practicalities of props and costumes or timing related to schedule. The roles were not assigned but rather borne. One introvert describes the regular process of group projects in comparison to this one:

> I usually feel myself getting more drained, contributing less and less to group thinking as I recharge. I have to process my opinions before gaining the courage to state them. I often find myself prepping my response in my head before I finally verbalize them. This was not the case here.

The ambiverts worked in a similar fashion to the introverts except for eschewing the solitude of revision for team rewrites. The group assigned leadership roles for ambivert members. One ambivert writes:

> Rather than skirting around decision-making to avoid hurting people's feelings, we agreed that directly speaking up and being constructively honest with each other would be the best way to succeed. Thankfully, all members of my group also identified as ambiverts, which made the balance of conversation smooth and without much conflict.

The presentation of the sketches was fascinating. The extrovert team, who spent weeks laughing at each other's hilarious improvisations, landed with a thud during their presentation. By their own admission, their lack of structured work and use of a strict improvisatory approach yielded shallow and subpar material. One team member writes, "I had some ideas, some good ones. They all needed to be edited, stripped down, filtered, and rehearsed more." These are the tasks and strengths usually associated with introverts. The extroverted student continues, "However, since we had so much freedom, it led to my group's demise. The combination of people we had led to us struggling with issues of personal accountability." Another extrovert examined the process and resultant product by writing, "These actions were a result of poor preparation." The introverted students' presentation resulted in clever and polished material that met the prescribed outline of the project. The ambiverts found the rules of the presentation a bit oppressive. One wrote, "My creativity seemed stifled by giving us all of the rules, but I guess it helped avoid conflict." The level of knowledge of the strengths of introverts and extroverts contained in the reflective writing from the students within the course is evidence of the start of a more inclusive classroom.

By implementing the strategies and testing the suppositions of the experts, I felt I had keener knowledge of how to create a more inclusive classroom in the future. I already had a classroom full of students understanding, appreciating, and reflecting on the nuances related to group dynamics. In the future my classroom would contain a fuller augmentation in order to offer entrance into actor training that respected all types of learners. And while my experiment was actor-based, exploring the options of presentations and team dynamics can be easily transferred to any creative classroom.

7.6 Conclusion

Inclusive actor training thrives on a shared deeper empathetic knowledge of introversion, as well as an augmentation to accepted training practices to include all learners. While this is true for actor training, it is also true for any creative classroom. The experts interviewed remind the creative teacher of various elements of introversion that may guide future work. Kasevich notes that participation in any creative activity may be focused on, "Quality. Not quantity" (telephone conversation August 20, 2016). Marriage reminds educators to "give the gift of time" as this results in richer work (interview October 19, 2016). Hendrickson wants to make sure that "all students know the rules," as that knowledge creates a more level classroom (email July 6, 2016). Rather than a classroom with required participation, Ramm notes, "It could be perceived that the person with the most power in the classroom is the person who has said nothing" (interview August 24, 2016). By adopting these and the other strategies mentioned, educators might begin to reform pedagogy for theatre, as well as for other disciplines, from its extrovert-based model to a classroom that embraces and finds a balance for all types of learners.

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Chapter 8
Teaching the Creative Process: An Essential and Portable Skill

Lynne Porter

Abstract We can and should teach with several goals in our theatre classrooms. Yes, we should be teaching students our specific content (e.g., acting or design). We should also be teaching the creative process and its value in solving a myriad of problems. These are distinct and separate ends to our teaching. By being transparent about the creative process that underlies acting and design work, and encouraging students to use that creative process in a variety of different contexts, we are giving them the ability to invent solutions to any problem. This process, a habit of mind, is an important tool they can use for the rest of their lives to manage unexpected challenges. We are giving them a very important gift.

8.1 My Creative Quest: What Sparked My Interest in the Creative Process?

When I started teaching design, I mimicked the way that I had been taught. I had my students read a play, and then I would discuss it with them in class, making sure they understood the characters, story, ideas and themes in the play. I would instruct them to do some visual research, and we would look at their images. I would then send them off with the instruction to "bring in some sketches of your ideas." Typically, my students would come back with next to nothing—they would report that they had no ideas worthy of sketching. I would poke and prod them along, while my stymied students would resist doing the work. Then, the night before the project was due, my students would stay up all night, frantically working on their projects. They would arrive in class the next day with some semblance of a design project, punchy, sleep-deprived, and completely unteachable. I frequently thought that if they had gotten to that point a week earlier, I could have helped them develop their ideas into stronger designs. I fear that the real lesson these students learned was that designers are masochists who do a huge amount of work in one night.

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Not all my students had that experience. A few in every class would be able to come up with an idea or two, and would diligently work their way through the design process as I intended. It seemed that some of my students had a "design bone" while the rest did not. Some students were able to learn the design process, while the rest avoided it until they hurriedly came up with something at the very last minute.

I have discussed the happenings in my classroom with numerous colleagues over the years. My problems are not unique. Indeed, they are not even unique to teaching design. Colleagues who teach acting, directing, playwrighting, and dance report similar problems—some students seem to grasp the creative work as we intend, and some do not.

I decided to address the resistance that stymied student engagement. I went about this in several ways:

1. In reviewing my instructions to my students, I identified a weakness: I told them to come to class with sketches of their ideas. Up to that point we had been reading, analyzing the play, looking at research images, and working on drawing technique. All of that seemed relatively straightforward. Yet, when I asked them to come up with ideas, it felt like I threw my students off a cliff. I identified a major question: how could I help my students generate ideas?
2. I discussed the creative process with numerous working artists. I thought this strategy would reveal a myriad of creative techniques. Instead, I frequently heard artists essentially say, "I don't know, I just do it. I know in my gut when it's good." These people have so completely integrated the creative process into their psyches that they do not even see it. This lack of information was a frustrating turn of events, as it taught me little about these artists' personal processes. So, the question became: what processes are these artists using, both consciously and unconsciously?
3. I then resorted to a more academic approach, and I investigated the creative process literature. This turned out to provide a rich array of ideas. In particular, it gave me an understanding of the different types of thinking required throughout the process, as well as a detailed sense of the various stages of the creative process. My main research question was: what actually is the creative process?
4. This work led me to engage in a close analysis of my own design process. I observed both the internal work—the thinking—as well as the external work—the analysis, research, sketching, and painting. I was able to recognize the creative process in my own design work. Another important outcome of this work was learning how to think about my thinking as I engaged in each stage of my design work. This metacognition became important to my work as a designer and as an educator.

Using the discoveries of this multi-year investigation, I then worked to create a conscious activity for each element of the design process. These exercises force designers to use various thinking skills—critical, analytical and creative—as they are creating drawings, lists, collages and the like. Of course, I tried out my ideas and exercises with my design students, and refined them as I assessed the results. I

ultimately came up with a teaching method that reliably takes students through the complexity of the creative process as well as the design process. The results are profound: my students' design work is more inventive, more fully developed, and my students have a holistic understanding of design. Most importantly, my students engage in every aspect of the process, not just a mad rush to make a deadline.

I wrote a book that details my odyssey: *Unmasking Theatre Design: A Designer's Guide to Finding Inspiration and Cultivating Creativity* (2015). It examines the creative process as a series of phases, unpacks the mental processes involved in the work, and outlines numerous activities and exercises that take the reader through the entire design process. This book features information applicable to all creative endeavors, not just theatre design.

As I have changed my thinking and teaching, I have noticed a fascinating dynamic: the more overtly I reveal the creative process that underlies the design process, the more my students talk about how they are utilizing skills learned in design class in their other classes. I am convinced that this transfer of creative thinking is an important idea: the creative process can become portable if students learn to consciously see it and use it.

8.2   Hence, My Thesis for this Chapter:

We can and should teach with several goals in our theatre classrooms. Yes, we should be teaching students our specific content, e.g., acting or design.[1] We should also be teaching the creative process and its value in solving a myriad of problems. These are distinct and separate ends to our teaching. By being transparent about the creative process that underlies acting and design work, and encouraging students to use that creative process in a variety of different contexts, we are giving them the ability to invent solutions to any problem. This process, a habit of mind, is an important tool they can use for the rest of their lives to manage unexpected challenges. We are giving them a very important gift.

8.3   Defining Creativity

My definition and understanding of the creative process is based on ideas promoted by several different theorists. In *The Art of Thought* (1926) Graham Wallas analyzes the various phases of the creative process into preparation, incubation, illumination,

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[1] Throughout this chapter there are numerous references to acting and design. Of course, the ideas expressed here relate to directing, playwrighting, dance, choreography, technical theatre, and even theatre criticism. Please understand that these principles can be applied to all disciplines within theatre education and production. By discussing acting or design, I am merely trying to simplify my examples in this chapter. All theatre artists use the creative process in their work.

and verification. In *Lateral Thinking* (1970) Edward de Bono unpacks the differences between lateral and linear thinking. In *Applied Imagination* (1953) Alex Osborn describes brainstorming, a lateral thinking process for coming up with a flurry of potential ideas. In the quirky *The Universal Traveller* (1974) Don Koberg and Jim Bagnall describe the meandering path of the creative process in the terms of an adventurous journey. The ideas in these books have strongly influenced contemporary creative thinking theory.

For the sake of this chapter, I will use the definition that I use in *Unmasking Theatre Design:* creativity is *problem solving for new and effective solutions.* To unpack my definition:

1. We must recognize that there is a *problem* to solve; creativity does not happen in a vacuum.
2. Creativity must result in *new solutions*, not time-tested solutions.
3. The new solutions must be *effective*. Any problem has a myriad of solutions, but many of them are not viable. The goal, therefore, is to recognize the best ideas and be willing to discard lesser ones.

In the theatre-making process, we are regularly presented with problems to solve, so there is ample room for practicing the creative process in our field.

I am not merely referring to the problems that arise unexpectedly, like the illness of an actor, a sudden budget cut, or the arrival of a catastrophic storm. Yes, we address those problems when we make theatre. However, there are hundreds of other non-emergency problems we address every day, from wrestling to articulate the overriding ideas a play evokes, to managing the backstage traffic of moving scenery, to learning to embody a particular character. We need creativity in all aspects of the production.

8.4   Why Is Teaching Creativity Important for our Students?

In my experience, students do not always connect their class experiences with a creative process. Why is this? I believe there are several factors at play.

Until students are challenged, they tend to compartmentalize. Students take a class in acting or design, and they learn how to act or design. However, they may not see how they can apply their acting or design classwork to other things they do in life. For some students, information is subject specific—it exists in a bubble. This is true for all disciplines, not just theatre. This compartmentalization is supported by the education our students have encountered before college. Our challenge as educators includes helping our students integrate ideas across disciplines.

This compartmentalization struck me during a recent end-of-the-semester classroom discussion. I had team-taught a Shakespeare Production class with two colleagues: an actor/director and a costume designer. One of our students said that she had learned that working on Shakespeare was a process—you had to keep going back to the text, while trying different things until you learned what worked best. As

we all nodded in agreement, I pointed out that it is always the same process, whether you are acting, designing or directing. The student looked at me blankly for a moment, never having considered how the work in her various theatre classes was so similar. If she was not seeing the common ground in all her theatre classes, imagine how much she was separating her non-theatre learning into little pigeonholes. I believe that there is great power in emphasizing these connections to our students.

Some students focus on pleasing the professor. All educators are aware of this dynamic, as their students overtly wonder, "What do I have to do to earn an A in this class?" This attitude contrasts sharply with the goals we have as educators—we would rather they focus on learning and applying the skills and content of the course. This problem can also appear in production, as actors and designers ask, "What do I have to do to please my director?" Once students learn how to please their professor or director, they have achieved their goal. This form of compartmentalization does not serve our students, as it can stop them from considering a broader application of their skills.

I have seen this dynamic play out numerous times. At the beginning of a semester in my design class, students look to me to tell them if their work is good. As I am interested in teaching them to be self-critical, I avoid answering and instead turn the question back on them. While initially frustrated, my students learn to look at their work and see where they can improve it. They eventually learn to engage deeply in the work, which usually leads to good grades.

8.5   Why Might Educators Resist Teaching Creativity?

We may limit ourselves to teaching only the specific content of our courses. In fact, many colleagues express a fear that by adding creativity content to a course, they will have to remove other essential content.

We tend to plan our semesters by jam-packing readings, assignments, and trips into our syllabi. Throughout the semester, many of us find ourselves judiciously removing elements from our syllabi, as we realize that it all does not fit into the time allowed. Hence, it makes sense that adding creativity content will further clog a semester's progress. Yet creativity content is not the same as adding another play reading or project. I am talking about teaching the creative process as a habit of mind that facilitates acting and design, not adding one more assignment. It is not about the number of projects our students do; it is about *how* they do the work.

In my experience, when I overtly teach the creative process along with theatre design, my students do stronger design work. They also leave the course knowing that the creative process is a new tool in their personal tool belts, one that can stimulate new ways of thinking across disciplines.

For example, I frequently have students taking my design class while they are also directing one-act plays. The work in my class is immediately applicable to their directing. I hear reports of how the play analysis learned in my class is leading them to new discoveries in their directing scripts. I also hear about exciting rehearsals,

where they inspired unexpected acting choices by encouraging lateral thinking in their actors. These students are actively building their skills, both as theatre artists and as creative thinkers.

We may not consciously know our own creative process. Those of us who find ourselves teaching in the arts probably showed a propensity for art-making when we were young. We obviously had some natural ability for creating. Because we had this innate gift, we probably were not taught the creative process—we seemed to know it already.

This dynamic became apparent to me when I asked working artists to describe their processes. Many of these fine people were tongue-tied by my questioning. I also think that the mystique of the artist is a factor. Our society seems to elevate the idea of the talented person with the wonderful ability to create works of art. Parents, teachers and friends typically do not question the art-making process, but instead focus praise on the end result–the work of art itself. Hence, some artists are not consciously aware of the process underlying their work; the process, for them, is intuitive. Yet intuition is not necessary: the creative process is both teachable and learnable. In fact, once someone consciously learns creative thinking skills, the day-to-day applications are endless.

We see how our creative process can be used in different situations, so we assume that our students can see it too. While it is tempting to assume that our students think like us, that is an unreasonable expectation. Most educators learn this early in their careers, often to their dismay.

8.6   So, What *Should* We Teach?

Of course, we need to teach our specific content. When students enroll in an acting or design class, they expect to learn about acting or design. As educators, we need to be fulfilling the specific curricular needs of our students' degree plans. In addition to teaching the specific content of the course, I recommend that we also teach the following:

A. Two important principles:

- *Being creative is a basic human trait,* accessible to everyone. This discovery can be comforting for those students who worry that they might not have been gifted with the creativity gene. We should explain that those "really good artists" they encountered in school simply had an intuitive sense of creative problem solving. Everyone has the ability to be creative, but some people seem to have unconsciously integrated it into the way they think.
- *Being creative is a learnable process,* not a final outcome. This view of creativity fits neatly with what most of us already teach: acting as a process, and design as a process. The creative process is a habit of mind—a method for problem solving.

B. The elements of the creative process. Creative work requires shifting between the various phases of the creative process, while thinking critically, analytically, and creatively.

- *Comprehending the nature of the problem*, which includes reading the play and embracing the specific limitations of the project. What does the script demand? What is the schedule? Is there a budget? What collaborators are involved? By both comprehending and accepting the challenge of a project, we are promising ourselves that we will search for the best solution, despite inevitable roadblocks and dead-ends.
- *Gathering inspiration* involves analyzing the play and engaging in research specific to your role or design assignment. The trick is to gather widely, so you have a wealth of data to inspire your work. Often the most inspiring piece of information is something that came to us unexpectedly.
- *Inventing solutions.* For actors, creating different solutions is the heart of the rehearsal process, as they try multiple ideas on their feet. Designers invent multiple solutions too, as they devise different concepts and thumbnail sketches. The most inventive ideas tend to result from a flood of different potential solutions. Even the most ridiculous idea might eventually lead to a great solution, so encourage your students to avoid limiting themselves—emphasize that they are engaging in a complex process, and even if they have found a great idea, they are not finished yet.
- *Develop the ideas,* which involves both critical and creative thinking. Actors and designers *sort,* to discern the ideas that should be developed; *experiment,* to stretch the potential of the ideas; and *test,* to ensure that the ideas truly solve the problem. Development has an overall funneling effect, where an idea is honed and polished into its best form.
- *Present the solution.* In the classroom, the presentation coincides with the due date of the assignment, where acting students perform their scenes, and design students present their renderings and models. In a production setting, we present our solution to our audience on opening night.

The creative process is non-linear. Despite the fact that it appears to be a step-by-step process, it actually requires moving fluidly through the phases multiple times. I have unpacked the process in much more detail in *Unmasking Theatre Design.*

In the description of the creative process above, I have purposely expressed the phases in non-theatre terms. I did so to help emphasize the fact that the process can be used in a variety of settings: when devising the thesis of a scholarly paper, when navigating a new route, when cooking a new dish, and even when coping with the effects of a disaster.

Embarking on a creative journey seems especially tricky, as students will not know exactly where they will end up. This apparently destination-less journey is not without a map—the creative process is their guide. Once students have engaged in a robust creative process, they can surprise themselves with the enormous satisfaction of creating an unexpected outcome.

8.7   How Is this Approach Different from Simply Teaching Acting or Design?

There is a crucial distinction here—as you are teaching, you are naming and defining the various elements of the creative process. For example, while reminding students that they need to do their research, you talk about gathering inspiration as a crucial element that will spur their idea generation process. You talk about using lateral or creative thinking to explore numerous ideas before they use critical thinking to refine any one particular idea. You also regularly remind students that the creative process works in numerous contexts, not merely acting and design classes.

8.8   In Sum

I have now closed the circle. While I would never say that I understand everything about creativity and design, I certainly have grasped answers to my initial questions:

What actually is the creative process? It is an iterative, elliptical process that cycles through these phases: Comprehending the nature of the problem, gathering inspiration, inventing solutions, and developing the ideas into the best solution. Becoming aware of the various thinking processes and learning to activate them consciously is important.

How could I help my students generate ideas? Through a robust use of the creative process. In particular, my students now have activities to ensure that they engage in all aspects of the creative process, instead of simply waiting for inspiration to strike. *Unmasking Theatre Design* features numerous exercises toward this end. Additionally, the most important project I expect of my students is a sketchbook chock-full of lists, notes, and ideas in both written and visual form. This document is a record of their thought processes throughout the semester, and effectively helps us engage in discussions about their progress in my class.

What process are artists using, both consciously and unconsciously? To a person, each of those working artists I interviewed uses the creative process described here. They might use different words for it, and they might not do all of the work externally, but each of them engages in all phases of the creative process.

As for our students, we know that not all of them will go on to be actors or designers. Even if they do, the chances are, they will end up supplementing their income with non-theatre work. Therefore, we should embrace the opportunity to help them stretch their creative skills beyond our classroom walls. For some of our students, this will happen naturally—the creative process becomes an habitual method for finding solutions. For the rest of our students, they need to be reminded that the process learned in acting or design class is a way of solving puzzles or problems, a way that can be applied throughout their lives. Here are examples of how some of my students have used these skills in non-theatre settings:

1. Maggie made a voluminous list of jobs she planned to apply for, the obvious result of lateral thinking while brainstorming.
2. Owen invented an exercise for his middle school students as he directed them in a production of *Twelfth Night*.
3. Lauren, working in quality-control as a nurse at a major hospital, devised effective safety protocols for hospital staff.
4. Lisa managed her family's recent medical problem.
5. Grace used creative thinking in her work with the marketing division of a major auto manufacturer.

By being transparent in our teaching about the connections between the creative process and acting or design, we ensure that our work will have a greater impact on our students. The creative process is portable, and will be useful for the rest of their lives. What a great outcome for a semester spent in an acting or design class.

Part III
Creating the Self

Chapter 9
Staging Our Selves: Towards a Theory of Relationality, Possibility, and Creative Youth Selfhood

Kathleen Gallagher and Scott Mealey

Abstract This chapter investigates the unexpected emergence of novel connections between self-creation, documentary theatre technique, performance pedagogy, and educational community that manifested themselves within an international, ethnographic study of youth civic engagement and theatre. Over the course of two years of observation and 45 individual and focus group interviews in one Toronto high school, we witnessed a sophisticated and novel voicing of the nature of self and its unique growth within the social nesting of a drama classroom, even under the occasional shadow of oppressive conditions. We examine, through the multidisciplinary lenses of feminist political theory, performance theory, and the students' own theorizing, the unique roles that collective narrative creative practices (including verbatim theatre and oral history performance), relationality, critical dialogue and performative/playful skill-building enact in a creative and resilient expansion of the quotidian lives of youth. We conclude by gesturing towards a theory of youth selfhood and creativity.

9.1 Intention and Setting

> Creativity is the vehicle of self-expression and part of what makes us who we are. (Paul and Kaufman 2014, p. 2)

> What lies within the concept of creativity, what creativity is, why promoting it is a necessity not an option, and how it is applied by and to different individuals, groups of people, in different communities, institutions, and societies, historically and culturally, is dependent on how the term "creativity" is grounded, used, practiced and in what context. (Bresler and Thompson 2002 cited in Burnard 2007, p. 1175)

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In this chapter, we look closely at a much-pondered notion in drama education and applied theatre: What is the relationship between 'the self' and 'the collective'[1] in drama classrooms/workshops? And, most pertinent to this book, how does this perennial curiosity map onto and expand the notion of creativity as a fundamental medium for self-development, especially through its seeming dual provision for an inhalation of self-insight and exhalation of self-expression? The context for our exploration of these ideas resides largely in the first two years of a five-year international study of youth civic engagement and theatre, during which time we conducted forty-five individual and focus group interviews in one Toronto high school. Through the process, we not only witnessed a sophisticated and novel voicing of the nature of self and its unique growth within the social nesting of a drama classroom - sometimes under the shadow of oppressive conditions – but we began making discoveries about the nature and possibilities of drama-based creativity. Though recognizing creativity as a multi-faceted construct (Pope 2005), in response to these interviews, we take as our initial foundation the position that creativity is an unhampered, exploratory, and social performance[2] in which new possibility is experienced (Nanay 2014; Pope 2005; Schechner 2006). We will be expanding on this definition by emphasizing the pedagogical influence of the aesthetic and social communities in which students' creative self-hood finds itself nested[3]—where it is shaped and, hopefully, nurtured and developed, the critical 'context' aspect of the above-cited Bresler and Thompson insight. In particular we will be exploring the creative advantages of coming to know 'the self' through forms of student theatre-making privileging collective themes and processes, which emerged in our global, multi-sited ethnographic research project, *Youth, Theatre, Radical Hope and the Ethical Imaginary: an intercultural investigation of drama pedagogy, performance and civic engagement* (SSHRC-funded 2014–2019).

9.1.1   The Radical Hope Project

Using a socially-engaged and collaborative model of research, the *Radical Hope* project has first asked what makes the classroom/or theatre workshop a forum for the creative exploration of civic engagement – who am I, relative to others, and what compels me to act upon my world. Collaborating across schools, theatres and

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[1] A decade ago (2007), Kathleen published "Conceptions of Creativity in Drama Education" in L. Bresler's (Ed.), *International Handbook of Research in Arts Education* (pp. 1229–1240), in which she lamented the paucity of literature in the field that entertains the centrality of 'the collective' in conceptions of creativity in drama and suggested that future research ought to take seriously this lacuna. This chapter moves in that direction.

[2] One way notable performance studies theorist Richard Schechner defines performance is by conceptualizing it as action that emphasizes "showing doing" (2006, p. 28).

[3] We are borrowing this metaphor from the seminal legal philosophy of Jennifer Nedelsky who has argued that rights must be understood as existing within larger embedded social communities that are always fundamentally influential and ideally nurturing in nature.

community spaces in Canada, India, Taiwan, England, and Greece, the larger five-year ethnographic study explores notions of hope and care (for oneself and others) by way of examining how theatre-making with young people might cultivate practices, relationships, dispositions, and values that orient them towards, and support them in engaged, creative, ethical, and relational forms of citizenship. Working in the expansive ways of drama, then, invites creators to newly perceive their relationships with others and their world.

In Year 1 and Year 2 of the project, at our local site of Regal Heights Collegiate,[4] Toronto, Canada, we secondly examined the theatre-making and performance experiences of grade 11/12 drama students (aged 16–18 years) who worked with two forms of documentary theatre, verbatim (Year 1, 12 students) and oral history (Year 2, 26 students), as unique sites and practices of creative pedagogy. Verbatim theatre is a form of documentary theatre in which plays are constructed from the precise words spoken by those interviewed about a given topic while typically, oral history performance involves participants working with material taken from their own lives. According to Wang, our research collaborator in Taiwan, this way of working is "a strong aesthetic practice that creates a community of learning" (2010, p. 566) particularly recognizing the value of dialogue. Building from the oral history memories of participants, then, the process emphasizes the ethics of what it means to share one's story and to receive the stories of others and then to make a collective performance from them. Despite their distinctions, the two genres share important features. Significantly, they are both i) pedagogies/ways of creating that privilege a collective and collaborative creative process and ii) pedagogies/ways of creating that make use of original (not received) stories and specifically the unique experiences/stories of those involved in the creative process.

In the Regal Heights students' practice of documentary theatre-making, we found empirical support for the position that pursuing questions of hope and care (for self, other, our world) made for a fecund creative space and helped us better understand the stakes of theatre and self-performance for two groups of young people reaching adulthood in the early twenty-first century. We additionally discovered, and will outline, surprises in the ways in which the documentary style of theatre across these years and the ensemble practices of creating, resulted in an effective and affective self-creation for many of these young people, within the context of a meaningful social nesting. While 'social nesting,' as a construct, has currency in the literature of social psychology, our use of the term 'relationality', in this chapter, comes from French art critic Nicolas Bourriaud's understanding of 'relational aesthetics,' which he describes as "a set of artistic practices which take as their theoretical and practical point of departure the whole of human relations and their social contexts, rather than an independent and private space" (1998/2002, p. 113). We

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[4] Regal Heights Collegiate (pseudonym) is a publicly-funded secondary school in Toronto which was founded in 1964. Of the 843 students at Regal Heights, 48% hold a primary language other than English; 6% of students have lived in Canada for 2 years or less, and another 7% have lived in Canada for 3–5 years.

have found both of these terms very helpful in understanding the educational and the artistic practices unfolding in our classroom research site.

9.1.2   *Journey toward a Performative Theory of Self*

When Scarlett (female, White, demi sexual, lower-middle class, atheist)[5] responded that a consequence of her experience as a drama student was that she "had learned to express herself" it seemed a lovely but rather pedestrian observation. After all, researchers consistently note that the skill of confident self-expression is typically a central motivation for engaging in drama education and often its most frequently cited reward (McLauchlan 2010; McLennan and Marie 2016; Quintero and Rummel 1996). Consequently, verbal gestures from our Year 1 students to "the self" went largely unregistered until a simple word-frequency check[6] revealed the ubiquitous use of the term in nearly every one of the twelve individual and three focus group interviews we conducted. It was referenced directly in words such as "myself" and "yourself," as an aspect of the students' larger assessment of themselves (e.g., "self-esteem," "self-awareness"), and inferentially in their expression of concepts such as "mind and emotions," the "me" and the "you." As we abandoned our dismissal of this phenomenon as a mere turn of phrase, an over-rehearsed and tired finding, and instead embraced it as a deliberate and substantive construct, we began to recognize a rather sophisticated and deeply vital relational self-creation that was at play.

Consequently, we were inspired to explore an emerging theory of self-creation and the ways in which it was nurtured through collaborative theatrical engagement, first through the documentary practices we observed and then through a two-pronged analytical/performance model (The Creative Inhalation and Exhalation) inspired by one of our international collaborators, Urvashi Sahni, as well as acting theorist Robert Benedetti. We will privilege the words spoken by the young people in our study, not as unassailable, but rather to bring them into lively conversation with the theorists and literature from which we draw—including several feminist, theatre/performance, and political theorists—to make further sense of the young people's articulations.[7] Paying attention to the words spoken is at the heart of documentary forms of theatre-making. We do this not so much in the interest of

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[5] All names are pseudonyms selected by the students and any social identity categories used have also been chosen by the students as self-descriptors.

[6] On the qualitative coding software NVivo.

[7] We are not wishing for our cited students to stand in for their race, or gender, or indeed any other social identity category but we are paying close attention to what the young people say about their experiences in drama class. In this regard, we are understanding young people as theory producers and cite their theorizations alongside other theorists. Further, we are not using our empirical data as 'display-pieces' for others' ideas, but are instead wrestling with the theoretical constructs we hear at play in young people's own analyses of their creative contexts and relations. Here, we are taking seriously St. Pierre's (2009) caution about "the unexamined celebration of voice in qualitative research [as] increasingly tiresome" (p. 221) and have instead brought so-called 'voice data' into dialogue with other theorists.

understanding those individual selves, but rather in the interest of drawing our tentative steps towards a theory of self-creation in the context of drama education.

9.2   A Youthful Self-Portrait

In looking back over our observations and interviews from that first year, we took note of three aspects of the drama-nested self the youth chose to consistently disclose and display: an expansive self, a gatekeeping self, and a vulnerable self. The subsequent student theorizing particularly highlights the deep connection between ongoing creative self-development and a fundamentally meaningful existence. They find support, as we will explain, from a number of prominent feminist philosophers who begin to extend our consideration of creative fulfillment toward questions of relational nesting ("the relational self"), in ways that make explicit what is often inferential in student interviews.

9.2.1   The Expansive Self

For these students, the drama classroom was the perfect match for an expanding, creative self, given its privileging of a wide range of largely unhampered explorations and discoveries. Year 1 student, Michelle (female, White, heterosexual, upper-middle class, Jewish), in discussing her appreciation for the drama classroom, expressed the sense of hopefulness it offered her growing self:

> … you're able to open up…to find, like, discover so much about yourself, like being able to open up to and get on stage and act and let out emotions through lines that you haven't generated yourself is something that is so important because you can, you can say, "… I think I'm gonna [explore this aspect of myself and my character today]." (individual interview May 22, 2015)

Students did not, however, suggest that growth was a uniform process, instantly stretching all sides of the whole. Much like a young actor who is gradually learning to play a repertoire of characters, the students understood self-creation to be an activity where one fitfully and unevenly engages in developing already present facets of the self while concurrently generating new ones.[8] Many eschewed notions of a singular and whole self for an unstable but more adaptable collection of intersecting performances of self. As student M&M (female, African-Canadian, heterosexual, middle class), put it, one's "true" self consists of the ongoing juxtaposition of emergent "versions of yourself"—including the one "you show to strangers," the one you "show to most friends and family," and the one "you show to yourself"

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[8] For instance, students referred to performance as an opportunity to showcase "different sides" of themselves and explained how they sometimes felt ethically pulled in the class between sides of themselves (Samson, individual interview May 25, 2015; Mya, individual interview May 24, 2015).

(individual interview May 22, 2015). These increased creative, self possibilities available within the classroom seemed to also afford expanded future creativity given that an increased self (or selves) was more effective at overcoming emerging creative barriers.

9.2.2 The Gatekeeping Self

We discovered that the desire for growth, however, did not necessarily lead to a catholic and unfettered approach to the intake and expression of creative learning. All incoming knowledge was patrolled by the students' very self-ish gatekeeper. At times, the door was flung open for information that was deemed pertinent and compelling to the self—Kool Dranks Samson (female, White, middle class, Pagan), for instance, appreciated the opportunity to learn and perform the perspectives of others in her drama class because, "You learn stuff about yourself" (individual interview May 25, 2015). But teaching could also be just as quickly shut down if the self found some intended lesson to be unrecognizable or lacking in personal application. Maliky (male, African-Canadian, Christian) shared how he felt creatively disengaged in the class when they were working on plays such as Samuel Beckett's *Waiting for Godot*, because they didn't make sense to his own self (individual interview May 25, 2015).[9] The students additionally conveyed a type of self that not only monitored inflow but also carefully sought out opportunities for outward expression, because they had higher aspirations than merely knowing: they wanted to be known. Or perhaps a better word would be apprehended, understood at a deep and almost physiological way. While not every dramatic opportunity was fully embraced and executed (for reasons we will discuss below), DJ Abraham Lincoln (female, White, straight, upper-middle class, agnostic/atheist), expressed an example of the affirming power of two-way apprehension in sharing a particularly successful creative moment during her class's presentation at a recent Arts Night:

> It was also the understanding of, like, everybody has problems and everyone has their own thing going on in their life…And I feel like that's really important to just have that shock of like, "I'm not the only person, not like suffering, but going through [this sort of experience]," you know? (individual interview May 22, 2015)

9.2.3 The Vulnerable Self

The drama space, given its particular capacity to foster revelation, clearly brought to light the high-stakes nature of creative self-development, but also revealed that drama writ-large was not a de facto panacea for the vulnerabilities inherent in such

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[9] He is clear in his explanation that his dislike for plays of this sort is because they "don't make sense" to his life interests rather than any ineptitude on his part to recognize the themes that are being explored. It is a failure of relevance rather than fact.

a pursuit. On one hand, the self of these teens was expectant, hoping and clamoring for both largess and acceptance. Jamal (male, Black, straight, middle class, Muslim), a student on the cusp of graduation, who revealed he was struggling with self-doubt, defined hope as,

> So, like you're sort of wishing for a better future, trying to strive to do better so that your future is a lot better than the one you have – than the one you can see right now for *yourself.* (emphasis added, individual interview May 25, 2015)

But the self was equally anxious – haunted by the fear of limitation and rejection. For instance, Zeida (female, Chinese, straight) gradually revealed to us the tug-of-war between her parents, who saw her as a businesswoman, and her own unfolding dream of becoming a theatre artist. "I think they want [me to] choose business in the future," she shared. "…What they think is that [in business] I won't fail…it's something really safe" (individual interview May 22, 2015). Often students in the class, like Zeida, in an attempt to stave off potential disappointment, would accept society's perceived diminishment of their selves, and consequently lower their expectations of themselves and the degree of creative boldness in their engagements (e.g., in the classroom, in their post-high school plans, etc.).[10] What was particularly worrisome was that the chronic action of diminishing their level of personal investment in developing their self-hood or allowing their selves to be diminished by more powerful voices (the "executive producers" in their lives), no matter how well-intentioned, seemed to grow into a habit, and that this habit had the very real potential to lead to a tragically compromised and stunted future. We were specifically troubled, in the multi-ethnic/racial classrooms we observed, that many students of color, despite their evident talents and thoughtfulness, persistently engaged in a foreclosing of their creative explorations of self based on their long-standing perception, and vivid experiences, that the dominant White culture was likely to painfully marginalize or rebuff any such attempts.[11]

9.2.4 The Relational Self

The view that the journey of producing one's self is inextricably bound to the experience of fulfilment and limitation finds support from a number of important feminist thinkers. Political theorist Mara Marin (2014), drawing heavily on the philosophy of Iris Marion Young, like the Year 1 students, binds personal expansion and satisfaction to the process of self-creation. Marin sees this process as often manifesting itself in activities such as play and the freedom to communicate one's

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[10] Zeida, for instance, decided to enrol in a business degree, for the coming first year of university, but to take theatre courses as electives.

[11] In Year 1 alone, the four most regularly attending students of African heritage, M&M (individual interview May 22, 2015), Jamal (individual interview May 25, 2015), Mya (individual interview May 24, 2015), and Maliky (individual interview May 25, 2015), all expressed such sentiments.

social perspectives with others. Such activities, it is worth noting, are typically synonymous with those that ideally take place in a high school drama class and we will return to them later in the chapter. We also see her helpful gesture toward creativity as an intrinsically relational act. Jennifer Nedelsky, author of the 2012 opus *Law's Relations: A Relational Theory of Self, Autonomy, and Law*, has argued for a society that attends to selves which "are constituted, yet not determined, by the web of nested relations within which we live" (2002, p. 45). The benefits of embracing such a relational and autonomous self, in which individual volition operates harmoniously with the integrated values and perspectives of others (Dryden 2017; Gore and Cross 2006), may include "joy, creativity, expression, and fulfilment" (Nedelsky, 2002, p. 36) but first require certain important conditions to be in place. In particular, they depend on freedom of creative access to significant personal and institutional relationships in which there is the "possibility of new engagement, breaking or transforming received patterns, giving rise to and acting on one's own distinctive perceptions, insights, and forms of engagement" (pp. 46–47).

Once again, while we do not imagine that Nedelsky had a drama class specifically in mind, we have seen how drama students describe this blend of creative access and possibility *within the nesting of their classroom* (students from both years are consistently clear that the drama room is a deeply distinct social space) and how this unique social setting can provide the exact benefit to the student self that Nedelsky lists. Of course for many, including some we have seen in drama classes, the conditions and the outcomes for the creative self are less than ideal. The "systematic institutional and social process" in which they live are perceived to either directly constrain their capacity for self-development or indirectly block them from access to any meaningful self-work and presentation that might take place within "socially recognized settings"—a state which Marin formally defines as oppression (p. 38). In certain cases, some students who sit in North American classrooms may even continue to live under oppressive memories of historical-cultural encounters with what Claudio Card has named social death. That is, some may labor under familial/cultural stories of relational nestings that have been deliberately and "irreparably damaged or demolished" (e.g., survivors of genocidal actions, children of slaves) (2003, p. 69). This burden can leave vital aspects of their selves in a deficit state, withdrawn and minimized, particularly if they find themselves within a dominant culture they perceive has marginalized them, their parents, or even their grandparents (pp. 74–76).[12]

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[12] It is important to add that "family" stories extend beyond the biological. We're thinking here of the work of a colleague, Cameron Crookston, who writes about 'family narratives' that are shared within queer communities (Crookston in press) or of Andrew Kushnir, Damien Atkins and Paul Dunn's creative turn in the "Gay Heritage Project," where they imagined what they had inherited and all they had missed from those elders in the queer community who were lost to AIDS before they were able to 'pass on' their stories and teachings to a younger generation of gay men (https://www.facebook.com/TheGayHeritageProject)

9.3   Toward a Theory of Youth Self-Creation: Initial Dynamics

How then can drama classrooms particularly address the need for youth self-creation by generating conditions that are not just broadly creative but specifically (i) facilitate understanding of the current self, (ii) provide the opportunity for that self to input meaningfully and equitably within significant social settings, and (iii) empower the self with the capacity and forum to represent its emerging nature? Additionally, in what way might those who are often deemed oppressed selves find a safe means to overcome the limits to self-development and expression imposed on them by a persistent culture of systemic marginalization? And, how do we write about those complex selves in ways that do not perpetuate an uncreative and pathologizing narrative about them? Our experiences in the first and second years of the project have suggested that not only did the particular style of theatre, in this case the documentary forms of verbatim theatre and oral history performance, support these sorts of outcomes, but that an unfolding two-stage process related to self-oriented storytelling both in the classroom and on stage—what we will describe as an inhalation and an exhalation of self—was critical in fostering supportive environments that encouraged meaningful self-exploration and self-creation. The following sub-sections, then, will provide detail of our empirically-based theorizing.

9.3.1   Verbatim and Oral History

If, as Marin suggests, playful expression of socially-infused perspectives is critical to the development of the self—and she would certainly share strong reverberations with performance scholars such as Richard Schechner and Monica Prendergast[13]– then it certainly can be argued that there is significant overlap here with the original intent and techniques of twentieth century documentary theatre.

Verbatim theatre, a genre of performance most notable for its strong reliance on interviews as its primary source material and its mimetic presentation of those original voices, is arguably one of the most influential forms of documentary performance. It finds its foundation, according to Derek Paget, in the work of Peter Cheeseman who took up a form of "discourse not normally privileged by either the journalistic or the entertainment media" in the economically devastated British community of Stoke-on-Trent (1987, p. 233). This emphasis may explain some of its appeal to students who often felt that "a lot of people…underestimate the youth" (Vanessa, female, brown, straight, middle class, Hindu, individual interview January

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[13] Richard Schechner, who dedicates an entire chapter of his seminal book, *Performance Studies*, to play, sees playing as a fundamental aspect of social exploration and expression and "at the heart of performance" (p. 89); while Prendergast centrally argues for the important relationship between play, art, and self-representation in her article "Playful Attention" (2004).

14, 2016) and that such a "mentality" led to dismissive infantilizing where the adult world would "oppress you and talk crap about you, but once you say something that means something to you… they're, like, 'oh, I don't know, whatever'" (Estelle, female, Asian/Black/White, lower-middle class, Hindu, individual interview January 16, 2016).[14]

In their 2007 article, "A Resurgence of Verbatim Theatre," drama educators Anderson and Wilkinson (2007) recall Cheesman's unique motivation for adopting verbatim technique in Stoke-on-Trent (Burnett 2013). He was determined to explore a relationship with a "coherent community" through a creative "relationship with North Staffordshire people by telling the stories of their trials and achievements" because "no other agency was providing this kind of food for their *self-respect*" (emphasis added, p. 157). So, as Anderson and Wilkinson have suggested, "from the outset [of verbatim theatre], the relationship between dramatic narrative and community identity and self-esteem was identifiable" (2007, p. 157). This same profound thirst to have one's story truly heard and the resultant positive affirmation of youth selfhood is reflected in M&M's recollection of the Year 1 students' final verbatim process:

> …When I was talking to the other people, they were, like, they loved it because people are actually asking about their lives… and in school that never really happens. …But, actually, getting, digging deeper I think that's what students…really enjoy. And we don't get that in school, so in drama class, we kind of… [Interviewer: "Get that more?"] …Yeah. (individual interview May 22, 2015)

What seems critical about this response is, first, that the student is affirming the effectiveness, indeed necessity, of the verbatim approach of "asking about [people's] lives." And second, as Nedelsky suggested, the level of joy experienced is attributable to and commensurate with the degree of legitimacy and agency ascribed to the creative self within a significant relational setting (i.e., in the context of community).

A second strand of documentary theatre, often intersecting and blurring the definition of verbatim theatre is what Ryan Claycomb describes as oral history plays or staged oral history. The illustrious Alex Haley argued that the publication of oral history could operate as a vehicle of hope that spreads a convincing awareness that typically marginalized stories still "happen to be a matter of disciplined documented dedicated truth" (1973, p. 25). Its narrative form, replete with oppositional, non-traditional trajectories and an emphasis on the notion of community over the individual (Claycomb 2003, p. 98), seems well-suited for the agitating creative selves that fill the drama classroom. Year 2 student Brittney (female, Caucasian) felt her groups' engagement with oral history technique facilitated a creative process that "was really, really special" because it opened the door to the expression of "stuff… they [as students] don't really like to talk about with other people a lot" and was legitimized and entrenched by the perceived success of "educat[ing]" audiences "who may not understand things that you're dealing with" (individual interview

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[14] Note that Estelle is defining oppression in a way similar to Marin: as a foreclosure on the expression of self by the dominant powers in a social setting.

January 14, 2016). She additionally understood that the communal aspect of the work ("when we were all sitting in circles and groups, just, like, talking about our stories and just being open") was significant to the outcomes because it not only "brought us a lot closer as a group" but because the trust it engendered facilitated conditions in which she and her classmates could "help them portray their story." Importantly, for students like Brittney, even the solemn responsibility to engage in the creative act of depicting her classmate's self, "made me feel good about *myself*" (emphasis added).

In Year 1, the students developed their verbatim performance work, primarily built from interviews they carried out with peers about their hopes for, and worries about, their futures. In Year 2, the students built their oral history performance work from personal stories shared by classmates, inspired by personal objects they brought into the class. We are not suggesting that all the students felt the satisfaction of self-creation as they journeyed through the prescribed verbatim (Year 1) or oral history (Year 2) curricula, despite their adherence to each style. Some of the less positive reaction may be accounted for by the social pedagogy of the classroom. The students were given a significant and comparatively unusual degree of autonomy in their group work and operated with sparse specific instruction and supervision.[15] Though many students saw this approach as a strength,[16] it could lead to power imbalances. In such instances, students who had less social privilege and/or capacities, might withhold responses—"I don't want to go somewhere…I'm not wanted" (Mya, female, Somali, heterosexual, middle class, Muslim, individual interview May 24, 2015)—or simply "sit back and let them [White students] talk about it, let them figure whatever out" (Maliky, individual interview May 25, 2015), thus losing out on any creative benefit.

We also observed periods, especially early in the verbatim unit, where despite dutifully completing their documentary assignments they seemed affectively dispirited and uninspired. While initially sensing that this state was related to a lack of personal meaningfulness the students were experiencing, we would now additionally suggest that it failed to meet Nanay's criteria for creativity. In her 2014 essay, "An Experiential Account of Creativity," she writes that, "An idea is creative only if the person in whose mind it arises experiences it as something she has not taken to be possible before" (Nanay 2014, p. 9). In retrospect we would conjecture that some of the documentary practices were merely replicating understandings they already held and failed to offer fodder for creative possibilities for the self. The incidents that we share next (and the model that they helped inspire) help complete our theoretical account for the enthusiastic expansion students largely reported at the end of both the first and second year documentary units.

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[15] A few of many comments along this line include Zeida's suggestion that their teacher's approach is "like he maybe gives us an idea or the theme—we work on that" and Year 2 student, Josh Rontego's explanation that "…[Their drama teacher] is giving us a lot of freedom and we haven't been given that freedom before" (individual interview May 22, 2015; individual interview January 18, 2016).

[16] The willingness to allow the students to self-guide is seen as one of the great strengths of this teacher who was extremely popular among the students in both years.

9.3.2   A Breath of Fresh Air

The first flickers of our own deeper understanding began to reveal themselves about three weeks into the verbatim unit. Students were randomly provided with a simple question,[17] with which they were tasked to randomly interview some of their fellow classmates. The engaged hub-bub that ensued was an early clue that something was afoot. The students were then instructed to create a short, single-voice, verbatim monologue using the responses they had received. The power of those initial monologues was remarkable not only for the surprising profundity of the messages but also for the professionalism of their flow and their use of evocative images. These monologues were then morphed into a single performance piece that, while less impressive aesthetically in its final iteration, still stirred up an intense response for both the student participants and their audiences.[18] For instance, in Zeida's composite on the question of personal change we could hear the voices of students' honest wrestling with the possible tipping point between self-maintenance and self-improvement (note for instance the use of "might"):

> I might become, like, more understanding of people as I live longer. Maybe I become—be more self-accepting and part of the world around me. I might become—might be able to appreciate things more, hopefully figure across more acceptance of other people and, like, be more positive and more open-minded to a lot more things. I'm a really cynical person. Sometimes. So I need to learn to be less cynical. And… the future… is just a really weird, scary place that I'm not looking forward to. (Zeida's Monologue, May 5, 2015)

About six months later in a research meeting in Toronto, we shared this event and some early examples of the 'self data' with our international collaborators, including the esteemed Indian educator and activist Dr. Urvashi Sahni. In an interview conducted a day later, she shared her own thinking on the connection between drama and self-development, which would provide inspiration for our current conceptions.

Sahni has given significant attention to fostering the youth self, especially the persistently oppressed low-caste female students she teaches in India, who are "not really [being]…encouraged to have a self" and are even "positively discouraged from having a self or an identity…" (interview with Urvashi Sahni, 2015).[19] In order to address this challenge she turns, in her 2007 article, "Drama in Education," to the Vedic concept of *ātman* which she equates with the self, seeing it as the locus for "true reality" and therefore of "the highest value" (2007, pp. 37–38). The *ātman* must struggle with its bondage to nescience (or ignorance), and she advocates for a creative unshackling where "as the self gets to know itself, it is released and in

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[17] Such as, "What kind of changes would you imagine would be in your life in ten years?" or "What changes do you expect to happen when you finish school?"

[18] The students performed their verbatim work for the entire school in afternoon assemblies and for their families in the evening.

[19] Once again, we are not trying to draw gross generalizations across these vastly different cultural contexts, but only wish to make good use of the theorizing of our research collaborator, which has been extremely valuable to us for understanding the particulars of our own cultural context.

doing so attains its true nature" (p. 38). The use of *ātman*, a term used in Hindu culture to describe the self, the breath, the spirit, and/or 'the real' (Johnson 2009), is a particularly interesting strategy given its correspondence to the practical-theoretical study of breath adopted by the theatre artist and academic Robert Benedetti (2005, pp. 10–11).[20] He writes in *The Actor at Work* that

> your breath constantly reflects your relationship to the world. It is through your breath that you literally bring the outside world into your body and then expel it again; the way you feel about the world is expressed in the way you breath it in and the way you breath it out. (p. 11)

This process, described later as an "instroke" of understanding followed by an "outstroke" of enacting performance (p. 121), finds additional correspondence with the empowering double-gesture Sahni suggests in her 2015 interview. A free and expansive self requires that the student first understands the position in which they find their selves, including the conditions that have given rise to that state (what we are seeing here as the inhalation), and then they must develop a unique and skilful agency in order to grow and assert and "perform" (what we are understanding as the exhalation) this newly aware self (interview with Urvashi Sahni, November 19, 2015).

9.3.3   The Creative Inhalation

In our Toronto data, we see first that most accounts of creative self-development begin with the intake of a novel discovery about the people who share in the students' worlds—often their drama classmates—which are "inhaled" in such a way that they stimulate the perception of new possibilities for the self, especially within its newly apparent social nesting. Benedetti similarly explains to students of acting that the instroke (or inhalation) of understanding begins when "a stimulus arouses a need" that is then "expressed by an attitude" (2005, p. 122). If we recall earlier remarks made by DJ Abraham Lincoln about the power of developing the verbatim monologues, her summative attitude could be described as a *new-found* appreciation that she was "not the only person" to experience life as she had (individual interview May 22, 2015). This adjusted orientation included an acceptance of the personal value of the classroom (i.e., her self could be safely nested and developed within those relationships) and the belief that there was a link between the self-stories of her classmates and her own: "…you just kind of hear some of these things [about people's lives and their past], and it takes you back..." She explains that this

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[20] He compares the study of breath to the study of psychology (a vital interest in Stanislavsky era acting training) and also, like Sahni, infers a connection between self, breath, and spirit by referencing the Greek term psyche (Benedetti 2005, pp. 10–11). One might also consider the term *pneuma*, which in the Judeo-Christian tradition is similarly used to express the deeper reality of life in both breath and spirit.

attitude began with the stimulus of "first-hand" encounters with students sharing deeper tellings of "their own thing" (i.e., revealing accounts of sensitive matters).

The critical capacity for such inciting self-revelation, a deeply sensitive and creative act, depended initially, though, on a teacher who deliberately created a context for this kind of personal sharing. This state of affairs is hardly a given in most classrooms, and students from both years persistently agreed with the assessment by Year 2 student Kathryn (female, Native-American, straight, lower-middle class, Longhouse) that in "other classes nobody really talks to each other, like classmate-wise…" (individual interview January 12, 2016). It further required an environment that students explained was marked as caring and non-judgmental. Kathryn insisted that the power of their group's communication was linked to the fact that "this drama class with these students and the teacher show[ed] more care" (individual interview January 12, 2016), while Mindy (female, Caucasian, straight, lower-middle class)—also in Year 2—shared that her initial hesitancy in engaging in the class was due to a long-enduring concern with not "want[ing] to be judged" (individual interview January 13, 2016). For many students, the stimulus of deeper expressions of self did indeed trigger a need to respond in a like-minded fashion. One of the more memorable moments of revelation in Year 2 involved a student named Muckles (male, White, straight, middle class, Christian) who intook the invitation to share during the oral history unit as a sign that it was "the right time" to finally share the story of the cochlear implant that jutted from his head (an invitational happening he felt had never taken place before). Such a brave inhalation on Muckles' part[21] would not, we suggest, have been likely, apart from the leadership of the teacher that instilled the expansive value and forum of courageous story-telling.

Muckles' group also found themselves deeply inhaling his core need to be freed from the anxiety that one's self, represented by one's story, may somehow be marginalized in the social worlds in which one lives. Consequently, they quickly adopted a respectful and protective attitude toward him (manifest as an adjusted social nesting). One member of that group was Breanna (female, African-Canadian, heterosexual) who came to believe that her experience with oral history performance facilitated a deeper understanding of her own and Muckles' self because it required that she "kind of give deeper thought to it" as "it [was] more personal or truthful to yourself" (individual interview January 18, 2016). Breanna further highlighted the genuine creative *work* that was required of her as a drama classmate when she acknowledged that it "was hard to understand how [Muckles] felt." This recognition forced her to draw on more than polite sentiment and fleeting empathy. Like all actors know, professional or not, the deliberate and persistent choice to inhale the messages sent by the other with a view toward respectful reperformance (the exhalation we will discuss below), is an extremely uncommon and intense

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[21] To somewhat complete the Muckles' account, despite the potential for negative reaction, his story was performed in front of his entire school. He believed this "paid off in the end. Because I had everybody knowing my story. I don't have anything to hide now. Everything's off my chest, and it's just normal—just feels normal" (focus group interview December 16, 2015).

activity.[22] It necessitates a deliberate, creative, and physiological search for what is typically unseen and unappreciated about the human experience. Without having themselves engaging in such an embodied experience, a theatre novice might misunderstand the full impact of Breanna's claim that, "I got to learn and share that experience with [Muckles]." She was expressing that she had learned a long-term lesson as a creative self: by choosing to invest increased effort into inhaling the journey of another self, she herself could be expanded.

9.3.4   The Creative Exhalation

As the students made abundantly evident in their interviews, while the developments gained through insight of inhalation were an important first step, the real proof of an expanded self required successful public performance – a creative exhalation. Kool Dranks Samson said as much when she offered that "[Performing] kind of gives me the ability to *prove* there's a different side of myself… to my peers, other people and family members…" (emphasis added, individual interview May 25, 2015). This recognition is part of the foundational training of an actor: the inhalation of thoughtful understanding always, and most importantly, leads to the exhalation of action (Benedetti 2005, pp. 124–128). Even the nomenclature of "act-or" foregrounds this axiom. Preparation in the rehearsal room is only valuable to the degree it manifests itself within the performance—one must ultimately produce on stage. Kool Dranks Samson understood that her on-stage work was vital as an embodied "proof" of a newly discovered self, not only for her "peers, other people and family members" but also for herself. Jamal, one of the most reserved students we had seen in the classes, was a perfect example of this journey. He, having typically conceived of himself as a reserved self ("a shy person"), newly posited that the performance aspects of a drama class not only "lets me be someone else" but it gave him ongoing *capacity*—including new opportunities and abilities—which could help him "be whoever I want" no matter on what "stage" he found himself (focus group interview May 19, 2015).

Sahni, in her work with dangerously diminished student selves, also adopts a pedagogy that emphasizes the need for a clear performance of self. After students initially, and collectively, develop "understanding [which] lead[s] to ways of overcoming the oppression," one then shifts to creatively discovering "the skills that you need," "your voice," and "your agency in the set of circumstances that you find yourself in" (interview with Urvashi Sahni, November 19, 2015). In fact she advocates in her 2016 article, "Classrooms as radical spaces of possibilities," for a school curriculum that makes room for training the skills of self-creation, much as it has for more traditional academic skills (2016).

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[22] Both of us have worked as actors and have spent decades training professional and amateur actors. We would add that even the listening required of, say, a professional therapist (which Scott has been), is of a different nature than theatre artists' listening.

Practical examples of this skill-building at Regal Heights included the development of a "public self" that became increasingly adept at presenting itself in a wide variety of known and unknown settings, because, as Maliky explained, their drama classroom "kind of forces you just to put yourself out there" (individual interview May 25, 2015). It also produced a kind of "foolish self" that benefited from the enhanced levels of self-resilience the students received through the regular display of performative mistakes in front of their classmates: "I get more confidence," shared Year 1 student Deen (female, heterosexual, Middle-Eastern, middle class, Muslim), "because you're always, like, on stage, performing in front of everyone; if you do something stupid, like, they're not really going to laugh at you… in a way but, like, it's drama" (individual interview May 25, 2015). The drama classroom was not simply a therapeutic support group where one divulged their opinions, pains, and dreams. It was a site for work, for rehearsal, in which they experienced positive pressure to consistently enact and breathe out their experimental selves safely amongst their peers. The cumulative effect of their persistent mini-successes and low-stakes, pedagogically productive failures in the classroom empowered legitimate autonomy. The fulfillment of their deep need to have a self that was successfully apprehended was increasingly transferred from the potentially arbitrary nature of their social environment into their own increasingly competent hands. This sort of hardy capacity-building should not be taken as a given simply because there is an intersection of the arts and a desire to create sites where youth can be creative and self-revealing. If Anne Harris (2014) is right, discussions of creativity seem to be accelerating in other fields while they are slowing down in education (p. 17). Perhaps the picture is marginally better in drama classrooms? At least in the ones we've been engaging with over the last three years of our study, we have found that intimate, aesthetically-derived creative artifacts can be a good beginning, but are certainly not an automatic guarantee of successful quotidian performances elsewhere. Nonetheless, the space and capacity for creativity not only helps self-development but it is a sustainable investment because it builds skill, capacity, and a helpful long-term mind-set. Gains of these sorts are important because self-creation can not necessarily depend on friendly places and people. Students must be encouraged to fully embrace the opportunities that present themselves and educators must strive to increase the frequencies of their occurence.

Benedetti writes that, while the world is often fraught with physical and emotional fragmentation, "a believable and artistically complete performance on stage or before the camera demands total involvement. All the parts of your body, your voice, and your mind need to work together" (2005, p. 11). The whole, developing and possessed self is not merely a series of loosely affiliated mental constructs, fantasies, and occasional gestures within the individual youth. It rather demands the cohesion and partnership of many parts that first emerge, then are understood, and finally brought into genuine and effective/performative ensemble. And, as we have illustrated with our youth interviews and our various theorists, the processes of self-development are deeply relational and the practices of documentary theatre-making provide a special forum for their experimentation and unfolding. It is the great power and potential of the drama classroom to play-fully foster a fulsome and

empowered self among a collaborative community who are equally committed to the performatively revealed self. They learn to inhale and exhale within a dedicated circle of life-long breathers.

9.4   Towards a Theory of Youth Self-Creation: Some Concluding Thoughts

The young people we have been working with and interviewing, the verbatim and oral history forms of documentary theatre-making and the expansive space created for sharing personal stories nurtured by the teacher in our Toronto site, our network of international collaborators, the multi-disciplinary theorists we have drawn upon here, and our own analyses have all played important roles in our emerging theoretical ideas about youth self-creation in drama-making contexts. Our collaborator, Urvashi Sahni, has, in particular, helped us think about our work with Toronto students not only in terms of her reflections on 'the self,' but also in terms of her drama pedagogy. In her work, she uses what she refers to as 'critical dialogues,' which is a pedagogical practice that dances between dialogue and performance, using a feminist framework. In discussing the challenges and harms experienced by the young women in her school, she invites them into an analysis of patriarchal structures and political institutions in order to situate their "oppression" of the self within the broader national, political, and social structures in which they must live. Dialogue then leads to performance and returns again to dialogue, not simply as a Boalian forum theatre-like intervention (2007), but as a relational and community-building pedagogy that helps the young women see their relationships to each other as integral to their resistance to individual experiences of oppression.

This dialogic process in theatre-making is also central to the practice of our Taiwanese collaborator Wan-Jung Wang (see Wang 2010), who considers it fundamental to the pedagogies of oral history performance. Sahni invites performance not simply as an idealized or simplistic 'alternative' possibility for her students in India, but as an aesthetic and intellectual intervention in the girls' own quotidian lives that depends upon, and builds from, the development of a sustainable community, a positive social nesting, a deeply relational space.[23] After individual stories are shared, deconstructed, re-imagined, they create together an ensemble piece, drawing in their breath collectively and exhaling possibilities into their space. Then, they bring their work to the streets, to the communities in which they live. This process is education, from its Latin root *educare*, meaning 'to lead out.' This kind of pedagogy clearly relies upon a different notion of expertise, in this case, one in which the

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[23] In November 2015, some members of our Toronto research team spent 10 days at Prerna School. During that time, we witnessed Sahni, and other drama teachers at the school, carry out this practice of 'critical dialogues' in a variety of classes, with both boys and girls. For video footage of this practice and other performances created by Prerna students, please see http://studyhallfoundation.org

young person is the expert, theorists of their own lives. Any theory of positive and creative selfhood, then, must acknowledge the expertise that youth hold within them, expertise in their experiential world and a deep capacity for growth.

For Sahni's students in India, as for our own in Toronto, what we now understand quite clearly is that any theory of self-creation for young performers/cultural producers should be understood as embedded in relationships; that the artistically-discovered possible selves are authorized and critically supported by a community of self-searchers, willing to take risks, experiment, succeed and fail, together.

It is perhaps a kind of well-worn but not entirely deniable stereotype to suggest that North American young people are self-interested. It is possibly why, as North American scholars, we were initially so dismissive of how the youth in our study were referring to, indeed understanding, their 'selves' and the positive role theatre-making was playing in their public enactments of self, their conceptions of selfhood and their creativity. But, as we looked more closely, cared more deeply, we began to see beyond the obvious, things we had not previously understood. Caring for a self is intimately allied with caring for an other. And both kinds of caring benefit from, indeed depend upon, the relational field, the social nesting of community. According to political theorist Nedelsky (2012), as we have argued, the degree to which one can expand oneself, grow, or exhale oneself into the world, as acting theorist Benedetti would have it, is commensurate with the creative access to significant personal and institutional relationships in which there is the "possibility of new engagement, breaking or transforming received patterns, giving rise to and acting on one's own distinctive perceptions, insights, and forms of engagement" (pp. 46–47). And, as political theorist Marin would insist, this process of self-development comes from play, playful expression, from one's ability to express one's ideas in a social context, free from historical, cultural, and institutional forms of oppression. When such ideal contexts are not readily at our disposal, we must play harder, build stronger communities, and turn our vulnerabilities into power, through enacted story. Documentary theatre-making in our study became a potent aesthetic and pedagogical playground in which young people could transform their stories, their relations with others, and their selves.

We have observed how growth of the self is not a uniform process and any theory wishing to account for selfhood must actively recognize the multi-directional, halting, and uneven aspect of self-creation, not explain it away as hesitancy, reluctance, or any other kind of psychological impediment or resistance to growth. If we believe that growth happens in creative play, that aesthetic sophistication requires joy and the experience of being apprehended as a self, that emergent 'versions' of a self are not failed whole selves but critical multiplicities of self in order to collaborate and derive social nourishment in creative contexts, then a theory of youth self-creation must capture those things that are to young people critical aspects of creative growth, as we have observed and understood them: the self who is multiple; the self who is discerning; the self who is relational; and the self who transforms vulnerability into power.

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Chapter 10
A Vygotskian Argument for Teaching Drama in Secondary Schools

Harry Daniels and Emma Downes

Abstract In this chapter we will argue that drama provides young people with opportunities for exploring possibilities of ways of being in the world. Our suggestion is that these opportunities of 'being other,' of reflecting on one's identity in the social world, are facilitated by experiences of being in role in the safety of settings that are an important part of drama in education. It is in drama lessons the techniques and practices of being in role are acquired. These techniques and practices constitute tools that enable young people to work on their 'selves.' They mediate social relations in such a way that enables new forms of exploration and understanding of the self and possibilities for 'being other.' The acquisition of these tools requires teaching. This argument becomes all the more important when we consider the fact that drama has been marginalized in the English secondary school thus denying young people access to what can be some of the most formative experiences of their educational careers.

10.1 Context

In this chapter we will outline an argument in support of the teaching of drama in secondary schools. It is our understanding that drama provides young people with opportunities for exploring possibilities of ways of being in the world. Our suggestion is that these opportunities of 'being other,' of reflecting on one's identity in the social world, are facilitated by experiences of being in role in the safety of settings that are an important part of drama in education. It is in drama lessons the techniques and practices of being in role are acquired. These techniques and practices constitute tools that enable young people to work on their 'selves.' They mediate

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social relations in such a way that enables new forms of exploration and understanding of the self and possibilities for 'being other.' Importantly, the acquisition of these tools requires teaching.

We make this argument at a time when educational policy in England has eroded the position of drama in the secondary school curriculum. Changes to state schools' funding allocations introduced by the Government in June 2017 have resulted in further restrictions of opportunity for the recruitment and retention of arts based specialisms. The disappearance of specialist drama teaching posts is steadily eroding the pool of expertise and experience in the field.

The provision of drama education in school depends entirely on whether the school has the budget to employ drama teachers. The decisions as to whether such staff are employed with the prospect of drama remaining a feature of the curriculum offered are affected by national curriculum priorities and budgetary constraints that require a sharp focus on what has become the core business of secondary schooling. Radical overhaul of national assessment at 16 has resulted in greater curriculum time being given to what are regarded as traditional subjects. Thus drama as a subject is at risk. We will argue that this transformation of the shape of the curriculum carries particular disadvantages for young people who are already disadvantaged. Drama is one of the curriculum areas in which many students can enjoy the success that they crave but which is often not available to them in more academic subjects.

We turn to the writings of the Russian social scientist L.S. Vygotsky for theoretical understanding of the ways in which specific forms of social intervention, in this case teaching, can exert an influence on the formation of creativity, imagination and identity. His suggestion was that teaching provides learners with access to ideas and concepts, understood as cultural tools or artefacts that are human products which mediate the acquisition of personal understanding and capability. This move from the social to the individual lies behind the description of his contribution as a theory of the social formation of mind. This is only a partial account of his work. He was also interested in creativity. The theory seeks to make a contribution to our understanding of mediational processes whereby socially available or socially provided influences are internalized and also the ways in which creative responses are externalized. He argues that human ways of being are shaped by social, cultural and historical circumstances and also that these circumstances are shaped by human action.

10.2 Introduction

We will open our argument with a discussion of the influence of Vygotsky on theoretical accounts of the place of creativity and imagination in cognitive and affective development and move to a justification for the teaching of drama grounded in his theory of the social formation of mind.

There is a growing interest across the social and applied sciences in what has become known as sociocultural theory and its near relative activity theory (e.g.,

Derry 2013). Both traditions are historically linked to the work of Vygotsky and both attempt to provide an account of learning and development as mediated processes. In sociocultural theory the emphasis is on semiotic mediation with a particular emphasis on speech. In this account cultural artefacts such as speech serve as tools that both shape possibilities for thought and action and are in turn shaped by those who use them. In activity theory it is activity itself that takes the centre stage in the analysis. Both approaches attempt to theorise and provide methodological tools for investigating the processes by which social, cultural and historical factors shape human functioning. In our case the interest is in the social shaping and making of identity and imagination. Neither account resorts to determinism in that they both acknowledge that in the course of their own development human beings also actively shape the very forces that are active in shaping them. This mediational model, which entails the mutual influence of individual and supra-individual factors, lies at the heart of many attempts to develop our understanding of the possibilities for intervention in the processes of human learning and development. For many educators it provides important tools for the development of an understanding of pedagogy. Importantly, this body of theoretical work opens up, or rather insists upon, a pedagogic imagination that reflects on the processes of teaching and learning as much more than face-to-face interaction or the simple transmission of prescribed knowledge and skill.

Vygotsky's emphasis on the self construction through and with those tools which are socially available brings two crucial issues to the foreground. Firstly, it speaks of the individual as an active agent in development. Secondly, it affirms the importance of contextual effects in that development takes place through the use of those tools which are available at a particular time in a particular place. He distinguished between psychological and other tools and suggested that psychological tools can be used to direct the mind and behaviour. In contrast, technical tools are used to bring about changes in other objects. Rather than changing objects in the environment, psychological tools are devices for influencing the mind and behaviour of oneself or another.

Vygotsky not only wrote about creativity and imagination (e.g., Vygotsky 2004), he was also an active participant in debates about contemporary theatre in early twentieth century Moscow (Sobkin 2016). In the so-called silver period in post revolutionary Moscow he was an associate of the likes of Stanislavsky and Mandlestam. He wrote many reviews of theatrical productions and his doctoral dissertation, entitled "The Psychology of Art," contained detailed analyses of novels and plays such as *Hamlet* (Yaroshevsky 1989). Although a reading of some twenty-first century accounts of his work may give the impression that he was concerned solely with cognitive development, this conclusion is far from the case. Partially under the influence of Spinoza he was trying to develop a non-dualist account of the cognitive and affective features of development in which the notion of creativity was a significant feature (Derry 2013).

We suggest that what drama education provides pupils with is an opportunity to experience 'being other' through the safety of the classroom and the guidance of the teacher (see Tawell et al. 2015 for an extended discussion). Pedagogic differences

with traditional subjects emerge at the very beginning of many drama lessons, when pupils and teacher negotiate anew the roles to be played each time the lesson begins. Pupils may be asked to sit in a circle, a physical demarcation denoting that traditional teacher/pupil roles will be temporarily suspended during the lesson. Mediation through difference in social relationships is at play throughout the drama lesson, be it through the social roles (leader/negotiator) that pupils may take in small group work, to the various roles that may be created as a result of either improvised or script based work. Through drama, pupils learn how to mediate not only their fictional roles (their role in the drama) but also their social roles. The context of the drama classroom provides the unique environment in which pupils are able to negotiate role.

In this chapter, we will explore how as children progress through primary school and transition to secondary the opportunities to play decrease and are replaced with a gradually more sophisticated language of drama. This new language, thought of as a tool in Vygotskian terms, may offer the pupil not just the immediacy of the role, but the opportunity to reflect, analyse and evaluate. These deeper learning moments enrich the pupils' experience of not only drama, but their ability to develop critical thought.

The introduction of this new language of drama begins at the start of the academic cycle in Year 7 (the youngest age group in the English secondary school system) when pupils may have some limited knowledge of the drama from their primary schooling. This early experience of drama may take the form of class assemblies or an end of year 6 play as they prepare to leave their primary schools. Pupils have some understanding of what a 'play' is. This understanding and introductory knowledge is formed through experiences gained from watching others, through the playing of roles in early childhood. Younger children are adept at immersing themselves in the act of play – this is how they learn and make sense of not only the world around them, but their 'self' as well (Tawell et al. 2015).

What happens in one drama classroom is unique to that context. Whilst pupils may explore the same text, the dramatic approaches to how that text is used and interpreted may be highly situation specific. Theoretical frameworks and polemic opinion on how drama should or could be taught in school continue to exert influence, either through teacher training courses or via the culture of the school. What is meant by 'drama' in school is varied and the definition unique to the institution. While in some respect, this variation may mean that drama is vulnerable and its existence precarious, it does also afford unique opportunities. A drama classroom affords pupils the space to experience pedagogic imagination, to determine that experience through negotiation not just on their own but with their peers in their classroom.

In line with Vygotsky's views on externalisation and creativity (see below) we suggest that drama can facilitate the development of the capacity for self authoring in pupils. Rather than following preordained routes and trajectories they may become active agents in the creation of their own identities and ways of being. Drama may support the development of creative responses to challenging situations. Traditional western theatrical approaches to drama focus on script and the production

of a play. Pupils are given scripted lines, which they must learn off by heart. Rehearsals prepare pupils for the performance of the lines – and pupils are directed as to how they might interpret their role by the teacher. Pupils learn the hierarchy of drama, reflected not just in the play but in their social and school roles. If productions involve the whole school, pupils can experience the unique opportunity to collaborate with others from differing year groups, thus encountering a way of learning from each other that is not restricted by age.

This experience of drama can be both rewarding and enjoyable for pupils—yet it is not without its limitations. Scripted plays require the pupil actor to speak only the lines given by the playwright. Furthermore, only a small minority of pupils may have the opportunity to speak any lines at all. Popular school productions include West End musicals—plays that entertain yet are light on in-depth exploration. The mediation of meaning does not operate beyond a surface level of limited plot and stereotypical characterisation.

If pupils are to learn how to create their own dramatic responses they must be given access and opportunity to develop an understanding of the language and grammar of the strategies that build upon the foundations laid in primary school. Pupils need to be given opportunities to internalise these dramatic structures and to learn to manipulate the grammar in order to exert due influence on the exploration of content. From the earliest preparatory lessons in Year 7 to the final preparations at the end of secondary school, pupils are gradually immersed into the culture and shifting dynamic of the drama classroom.

Year 7 drama lessons begin with introduction to play games and warm up activities. This methodology enables pupils who are new to drama lessons to engage with complex social rules through simple game playing. Pupils learn to listen, negotiate and have fun through participation in the activity. This learning is oblique—pupils are not necessarily aware of the distinction between 'playing' and 'drama' at this stage. Game playing, the act of participation and everything that these activities entail (collaboration, commitment, control, concentration, etc.) equips the younger pupil with the skills needed to operate in the adult world. Yet, just as this vital developmental stage of growing awareness of the difference between play and drama begins, social influence from beyond the drama classroom intervenes. Indeed, as the pupils mature in age, the willingness to engage in play diminishes. The drama classroom provides an open space in which that play can safely resume and, through negotiation with others, form the foundation upon which creativity is nurtured.

Pupil confidence and ability to engage in drama as a mode of learning are crucial in the early years of secondary schooling. Those pupils who have the opportunity to participate in drama from the age of 11 have the depth and breadth of experience by the time that they reach the age of 14 to use the structures to formally assemble not only a dramatic response to challenges, but to appreciate and understand the difference between playing 'self' and 'other.' This difference lies at the heart of the reasons why so many pupils struggle with the thought of performing or acting, as they are thrust into a role in which the distinguishing line between who they are as pupils and who they are in role is indistinguishable to them. Drama is not about the expression of self—it is the opportunity to express and experience 'other.' As older pupils

become gradually more confident and assured of their ability to negotiate the social roles within their small group, so too their ability to imagine what it must be like to be 'other,' to take up another identity, and thus engage in improvisation is enhanced. This work is informed by play undertaken as a younger child, but now it is structured and shaped through the grammar of drama.

Pupils who have experience in exploring content using drama structures have the additional benefit of participating and finding value in drama that is not necessarily performance orientated. Improvisation—the name given to unrehearsed or unprepared practical work—enables pupils to explore not only a wide range of characters but also ideas, to work through different viewpoints and to seek different interpretations. These exploratory moments offer vital opportunities for pupils as they jointly create shared understandings of characters and situations. Moreover, pupils are removed from the confines of perfecting an individual character to alternatively finding different outcomes, different resolutions. These drama structures allow the pupils to explore different perspectives on issues both within and outside the drama. But to operate within these structures requires the drama teacher to provide pupils with content that has sufficient scope for meaningful investigation. The content of drama curricula is too vast to cover in this chapter; however, the importance of introducing/selecting relevant, meaningful and thought provoking material for practical exploration is a significant pedagogic challenge. For it is within *how* the content is presented and negotiated between the teacher—pupil and pupil—pupil that some sense of shared meaning is born out of the shared experience.

The Vygotskian notion of mediation carries with it a number of significant implications concerning pedagogic control. The idea is that we as humans create what Vygotsky called tools, such as forms of speech, which shape the way we understand the world and which we in turn shape as we use them. In that the concept denies the possibility of total determinism through external forces it is associated with an intellectual baggage that is potentially highly charged, especially in the political context in which these ideas were originally promulgated. Vygotsky (1978) argued that humans master themselves through external symbolic, cultural systems rather than being subjugated by and in them. His understanding of mediation through and by socially available tools opens the door to accounts of a liberationist account of development—of human beings creatively going beyond the scripts of their immediate circumstances.

So much effort has been expended attempting to clarify the movement from the social to the individual and yet relatively little attention has been paid to the reverse direction. Bruner's (1997) reminder about Vygotsky's liberationist version of Marxism serves to reinforce the view that his was a psychology which posited the active role of the person in their own cognitive and emotional creation. Whether the emphasis was directly on creativity itself or through the use of expressions such as 'mastering themselves from the outside' in his early work, Vygotsky discussed at some length externalisation, the way in which an individual's creative response to the world enters into the flow of cultural life. Engeström (1999) reports that there has been a reawakening of interest in the topic in Russia which under Stalin was

preoccupied with theories which emphasized internalisation and social determinism at the expense of externalisation and creativity.

Vygotsky's writings that deal with creation and externalisation, especially *The Psychology of Art* (1971), received very little attention in the years that followed his death in 1934. The early studies led by Vygotsky, Leontiev, and Luria were discussed in terms of how given cultural tools mediated, or at times determined, cognitive development. However these studies of development not only examined the role of given artefacts as mediators of cognition but were also interested in how children created artifacts of their own in order to facilitate their engagement with challenges in the social world (see Luria 1976).

Engeström and Miettinen (1999) relate internalisation to the reproduction of culture and externalisation to the creation of artefacts that may be used to transform culture. In its simplistic form, this process lies at the heart of the drama lesson—the opportunity for pupils (and teacher) to review and transform both the culture of the classroom and the content explored. The rediscovered emphasis on externalisation is important because it brings a perspective to concept formation that affirms the notion of active agency in learning and development. Thus, externalisation is not the end product of drama (i.e., performance) but a *part* of the process of drama. "Like Ilyenkov after him, Vygotsky recognises that as much as culture creates individuals, culture itself remains a human creation" (Bakhurst and Sypnowich 1995, p.11).

Leontiev views externalisation as the process that "produces artefacts... that enter into and channel subsequent streams of activity" (Prior 1997). Ways of thinking and feeling may be influenced and shaped by the availability of cultural artefacts which may themselves be the products of mediated activity. An example of this issue drawn from a practical drama lesson would be the creation of a piece of 'writing in role' work, derived from paired improvisation which is subsequently interpreted/shaped by the group. In his discussion of Leontiev's work, Glassman (1996, p. 94) characterised this process as expansion originating in the "development of symbols in a joint community." Leontiev also argues that there are two layers of thinking and consciousness, one of which is "objective reality in consciousness" and the second being "consciousness of consciousness," or reflection (Zinchenko 1985, p. 114). This reflection points to the need to develop pedagogies which are informed by what may be crudely termed some form of metacognitive perspective. In the act of improvisation, a pupil may have some sense of how a role could be interpreted from their own experience of 'other.' At any given moment during the exchange the child is operating on multifaceted multidimensional strata, simultaneously the self, the other and the other yet to be. Leontiev was thus directing attention to the production of cultural artefacts some of which may act to inform self reflection. The creation of such artefacts (a drama, for instance) provides the pupils with opportunity for both shared and individual reflection. The 'development of symbols through collaborative activity in a joint community'—assumes a particular pedagogic significance. The production of cultural artefacts through collaborative activity may enhance self reflection and metacognitive development. This theoretical position extends Vygotsky's (1978) argument of the *general genetic law of cultural development.* The general genetic law argues the case for the primacy of interpersonal exchange

in development. Collaborative activity is seen as the site of production of tools for promoting reflection as well other forms of development. This form of collaboration is both creative and intellectually stimulating, but also potentially subversive. Critical thinking and reflection are powerful tools; opportunities to engage with these facets in other curriculum areas are limited by the motive of some curriculum planners that seeks to place value on a pupil's ability to retain, recall and regurgitate learning, in other words, to maintain the status quo. Drama creates the collective ability to question–to reconstruct the now into something that might be different in the future. This very reason is why drama has such profound and powerful pedagogic potential.

This emphasis on self construction through using those tools which are available brings two crucial issues to the foreground. First, it speaks of the individual as an active agent in development. Second, it affirms the importance of contextual effects, the argument being that development takes place through the use of those tools which are available at a particular time in a particular place. Vygotsky (1978) distinguished between psychological and other tools and suggested that psychological tools can be used to direct the mind and behaviour. In contrast, technical tools are used to bring about changes in other objects. Rather than changing objects in the environment, psychological tools are devices for influencing the mind and behaviour of oneself or another.

Vygotsky understood artefacts or tools as human products, with ideal as well as material qualities, that are taken up, developed and transformed in the course of human activity. By the time in which pupils in England are entered for public drama assessments between the ages of 15 and 16, the overarching aim must be to equip them with the ability to transform artefacts/tools independently of a teacher's guidance. The place and importance of drama in education is far more than the preparation for assessment. It is the preparation for a life in which individuals are equipped with the means of transforming themselves in the often rapidly changing social situations of adulthood.

Pupils can then use the tools of drama for personal and social development—and ultimate change. Vygotsky's cultural historical perspective on creativity has been summarised by Glăveanu:

> ...the *new artifact* (material or conceptual) is seen as emerging within the relation between *self* (creator) and *others* (broadly understood as a *community*), all three being immersed into and in dialogue with an existing body of *cultural artifacts, symbols and established norms*. This model is not structural but *dynamic* since it is in the "tensions" between all four elements that creativity takes shape with the "new artifact" becoming part of "existing culture" (for self and/or community) and constantly alimenting the creative cycle. (Glăveanu 2010, p. 12)

Furthermore these artefacts are understood in the historical context of their creation and their subsequent use through time.

Social and cultural tools are historical products, and creativity involves their deployment in the cultural context of the here-and-now. Vygotsky (2004) started with a conception of creativity as "a historical, cumulative process" (p. 30). This

sense of creativity capitalizing on the past is exemplified in the following, more recent statement with respect to adult creative artists: "the most eminent are those creators who best utilize the social and cultural tools and best fit with the social and cultural expectations of their time" (Moran and John-Steiner 2003, p. 80).

The concern of writers such as Moran and John-Steiner (2003, p. 63) has been to develop an account in which humans were seen as "making themselves from the outside" through their active use of cultural tools rather than being dominated and controlled from the outside. Through acting on things in the world, they engage with the meanings that those things assumed within social activity. By acting in the classroom, the pupils engage with the assumed conventional meanings associated with topics raised in lessons and reinvent them for the purpose of the lesson. In this way they become more active in the processes of their own self creation.

10.3   Creativity and Education

Given his emphasis on the creation of artefacts that function as mediators it is hardly surprising that Vygotsky (2004) emphasised the psychological importance of the development of creativity through schooling. From the perspective of learners who are deemed 'vulnerable' or whatever term is used to suggest low attainment, the question is whether they have access to the kind of interpersonal relations in the classroom that facilitate the intrapersonal dynamics of creative processes. Traditional classroom based subjects operate within an agreed set of conventions—pupils sit behind desks in allocated places, speaking when the teacher permits. Opportunity for dynamic creative processes are limited to paired discussion work. In the traditional classroom an individual's knowledge is valued above knowledge which the collective are capable of achieving.

Thompson and Tawell (2017) argue that recent studies have made a strong case for the teaching of the creative arts particularly when students are understood as being vulnerable. By participating in drama, pupils are given the opportunity to experience roles that offer them a voice different from their own. Drama gives the pupils time to engage in shape shifting their own identity—from pupil to member of a group, Year 7 to leader. But these opportunities are in the minority. This chapter is a call to action to envigourate drama pedagogy to play a central role in school education, for reasons outlined by Thompson and Tawell below:

> There is a growing recognition that emotion and imagination are central aspects in the development of young people's ability to self-regulate, empathise with others and work collaboratively (e.g. Fleer and Hammer 2013; Hughes and Wilson 2004). Other research has highlighted the need for strong peer relationships and the ability to collaborate within social environments (e.g., Lynch et al. 2013; Moran and John-Steiner 2004). The creative arts can offer some young people who are at very high risk of becoming disaffected a powerful set of tools for creating imaginary contexts that may provide them with the opportunity to renegotiate identities and hence re-engage with school (Daniels and Downes 2014; Wallace-DiGarbo and Hill 2006). (2017, p. 19)

Cole and Griffin (1984) argue that different settings and activities that give rise to spaces for creative exploration rather than pedagogic domination are at the heart of their position. In so doing they point to the fallacy of externally determined progession. "Adult wisdom does not provide a teleology for child development. Social organization and leading activities provide a gap within which the child can develop novel creative analyses" (Griffin and Cole 1984, p. 62).

Vygotsky (2004) recognised the importance of the development of creativity through schooling and also rejected the notion of creativity as the product of sudden inspiration. He argued that the active promotion of creativity was a central function of schooling.

> We should emphasize the particular importance of cultivating creativity in school-age children. The entire future of humanity will be attained through the creative imagination; orientation to the future, behavior based on the future and derived from this future, is the most important function of the imagination. To the extent that the main educational objective of teaching is guidance of school children's behavior so as to prepare them for the future, development and exercise of the imagination should be one of the main forces enlisted for the attainment of this goal. (Vygotsky 2004, pp. 87-88)

His analysis of the development of creativity is that children are not necessarily more creative than adults rather that they have less control and critical judgement over the products of their imagination. He suggests that as rational thought develops so does critical judgement and that the tendency is for adolescents to become increasingly dissatisfied with the products of their imagination if they do not acquire appropriate cultural and technical factors or tools with which to engage in creative activity. Adults dismiss adolescents' creative output if they are not given the tools to do this sort of work.

Vygotsky also argues that creativity is a social process that requires appropriate tools, artefacts and cultures in which to thrive. He extends this analysis to social class with a comment on creativity, which will doubtless cause a little discomfort when read by twenty-first century Western eyes. Here he suggests that there are class differentials in the availability of tools and artefacts for creativity and the time for their deployment.

> Every inventor, even a genius, is also a product of his time and his environment. His creations arise from needs that were created before him and rest on capacities that also exist outside of him. This is why we emphasize that there is a strict sequence in the historical development of science and technology. No invention or scientific discovery can occur before the material and psychological conditions necessary for it to occur have appeared. Creation is a historical, cumulative process where every succeeding manifestation was determined by the preceding one. This explains the disproportionate distribution of innovators and creators among different classes. The privileged classes supply an incomparably greater percent of scientific, technical, and artistic creators, because it is in these classes that all the conditions needed for creation are present. (Vygotsky 2004, pp. 30-31)

This position on the availability of tools, artefacts and time has been adapted by Wertsch and Tulviste, who talk of creativity as "transformation of an existing pattern of action, a new use for an old tool" (Wertsch and Tulviste 1992, p. 72). Wertsch (1991) also reminds us that individuals' histories with regard to cultural tools are an

important element in the development of mediated action. He argues that when Vygotsky uses the term 'mental function' he does so with reference to social interaction and to individual processes. In this sense mental functions may be seen to be carried by groups as well as individuals. He sees ability as the capacity to function with the tool and, citing Middleton, Bartlett, Resnick and Salomon, he also talks of mind being socially distributed, belonging to dyads and larger groups who can think, attend and remember together (Wertsch 1991).

Thus, a Vygotskian understanding of creativity: acknowledges its pervasiveness; understands the centrality of tools for creativity; and recognizes the importance of the social organization of pedagogy that promotes creativity. That is, Vygotsky is tacitly promoting the argument that education for creativity requires careful consideration of the means by which the tools and artefacts that facilitate creativity may acquired. When brought together these elements of practices that promote creativity have important implications for learning that transforms identities.

10.4 Vygotsky and Drama

There are two foci of attention for Vygotsky's thinking about drama. On the one hand he was concerned about the psychological drama of development and on the other he discussed the importance of dramatic events in the social world. As one would predict from his general sociogenetic theoretical orientation these two considerations were inextricably linked.

Yaroshevsky (1993) claims that there are strong grounds to believe that Vygotsky's early engagement with people with a theatrical background or a direct engagement in theatre such as Stanislavsky, or film making such as Eisenstein, had a life-long influence on his ideas and on the theory he created. Yaroshevsky (1993) writes of Vygotsky as "creating psychology in terms of drama" employing terms like "the drama of development" or the "drama of self-development." Here drama was thought of in a particular way:

> Drama meant collision, counteraction, conflict of characters. Not an impersonal setting of external circumstances, but a dynamic system of mutual orientations, motives and actions, having their own "plot"—this is what the social environment is like, in which personality is formed as a participant of drama. (Yaroshevsky 1993, p. 273)

Vygotsky also wrote about the place of drama in the social world in which young people develop. In his now well known essay on creativity and imagination he argued that:

> Drama, more than any other form of creation, is closely and directly linked to play, which is the root of all creativity in children. Thus, drama is the most syncretic mode of creation, that is, it contains elements of the most diverse forms of creativity. (Vygotsky 2004, p. 71)

The task of Vygotsky in 1930–1931 was to create his own theory of psychology in terms of drama. Here we can see the difference between Vygotsky's use of the concept stage and the more familiar ladder like concept deployed in much

developmental theory. The stage is the place the dramatic development takes place. The stage (theatre) has two planes – the social plane and individual plane. The planes only make sense relative to the stage, thought of as the social situation of development, and they are connected as two projections on the stage where the child is not a spectator but a participant. This argument is reframed by Smagorinsky (2011) who directs attention to the role of dramatic tensions in the formation of personality.

> Vygotsky's sense of drama concerns people in relation to both others and themselves, with drama emerging relationally through transactions with other people in social settings. Dramatic tensions are also present within the individual, indicating that the development of personality is a consequence of the internal and external dramatic conflicts a person experiences in everyday life. (Smagorinsky 2011, p. 335)

This issue is also explored from the perspective of identity by Holland et al. who deploy the Bakhtinian concept of the 'space of authoring' to capture an understanding of the mutual shaping of figured worlds, the term they use to capture and understand spaces of possibility, and identities in social practice. Holland et al. also argue that multiple identities are developed within figured worlds and that these are "historical developments, grown through continued participation in the positions defined by the social organization of those worlds' activity" (Holland et al. 1998, p. 41). Identity formation is a social activity that may take place in the unseen minutiae of interaction. It is as much a collective activity in the here and now as it has been through history.

> Just as electricity is equally present in a storm with deafening thunder and blinding lightning and in the operation of a pocket flashlight, in the same way, creativity is present, in actuality, not only when great historical works are born but also whenever a person imagines, combines, alters, and creates something new, no matter how small a drop in the bucket this new thing appears compared to the works of geniuses. When we consider the phenomenon of collective creativity, which combines all these drops of individual creativity that frequently are insignificant in themselves, we readily understand what an enormous percentage of what has been created by humanity is a product of the anonymous collective creative work of unknown inventors. (Vygotsky 2004, pp. 10–11)

This understanding points to the importance of the cultures of the school which form the setting for collective creative activity, and the importance of the individual, the collective and the social in arriving at an understanding of the underlying processes and structures. The drama classroom provides a space for experimental refiguring of the landscape of the social world of the young person. Arguably this possibility of change is particularly important for someone who has been positioned in the institutions of schooling as vulnerable, disadvantaged or unacceptable. In many traditional classrooms marginalized youth do not have the opportunity to exert positive change on their social position. If this idea is reframed in terms of pedagogic control, it is often the case that the more marginal is the position that a student occupies, then the more likely it is that they are subject to more stringent relations of social and pedagogic control. Drama lessons are often one of the very few pedagogic encounters in which disadvantaged and vulnerable students are given

the experience of a relatively dialogic form of pedagogy. In this sense drama subverts the orthodoxy of pedagogy as enacted in many of our schools.

The drama lesson may offer significant opportunities for the experience of pedagogic alternatives; additionally the 'figured' world of the drama lesson may impact on the 'real' everyday world. Participants in drama lessons may be offered experiences in which they may renegotiate themselves and the relation of others to them in the world beyond the drama classroom. They may take up new social positions and ways of being.

The experience of adopting a new role in drama creates the possibility for such reorientations to meaning and understanding of the self. This experience of working in role in drama lessons helps participants to develop capacities able to dissect, analyse and discuss social roles. This reflection on role has implications for all to extend their own maps of the world. Children are natural experts in this practice; from the moment they enter the school, they are shaped and formed by the social and cultural activities modelled by those already operating in that context. As Smagorinsky (2011) argues, this experience of cultural modeling raises questions about the kinds of mediation that are most beneficial. He points to the importance of gaining control of one's own trajectory through life.

> Vygotsky's brief consideration of imagination has great implications for the trajectories of social groups and their individuals. His relation of imagination, emotion, and cognition suggests that people's capacity to project a trajectory for themselves is culturally mediated. It is important to understand, then, the kinds of mediation that provide both the emotional foundation and cultural sense of propriety for their trajectories, and the sorts of mediation that potentially limit conceptions of trajectory. (Smagorinsky 2011, p. 339)

Here Smagorinsky (2011) points to the delicacy of the work of the teacher of drama. The teacher's task is to provide the means of self determination and self control rather than leading students through tasks that offer little by way of agency. This perspective has also been brought to the analysis of change and transformation in the workplaces that adults inhabit.

> Rather than being wholly subject to change, individuals are actively engaged in remaking cultural practices, such as those required for effective work practice. Individual experiences in social practices, such as workplaces, will incrementally, and at times, transformationally contribute to changes in their ways of knowing and sense of self (identity). Individuals' subjectivity both shapes the kinds of changes that occur and is itself shaped by events, particularly singularly dramatic events, because it shapes their response to those events. (Billett and Somerville 2004, p. 321)

Elliott and Dingwall (2017) draw on Wright and Rasmussen (2001) who describe drama as "linguistic intelligence, embodied knowing and personal intelligence," a form of knowing that "encourages and celebrates lived and imagined experience, emotions, intuition and creativity in their various forms of representation, and recognises and makes sense of those experiences" (2001, p. 219). They also identify dramatic pedagogy as one which is able to give young people an "authentic voice" (Elliot and Dingwall 2017, p. 219); a pedagogy which hands control over to young people could be an unusual experience for marginalised and at-risk youth, and potentially a significant and life-changing one.

There was clear evidence of the 'social imagination' (Greene 1995) which enables young people to envisage the world as different, both in their interview responses and in their improvisation and other activities we observed. Richard Courtney has theorised the way in which drama enables us to do this: by creating a fictional imitation of the world, we are able to compare the actual one with our fictional counterpart and to see the world as it might be (1990, 1995). "In this way, young people can compare the actual with the fictional, and it is the 'as if' of drama in particular that allows us to project and transform what we know, and potentially who we are (Wright and Rasmussen 2001, p. 222)." (Elliott and Dingwall 2017, p. 75)

Yaroshevsky (1989) also points to the importance of understanding the complex inseparable relationship between situation, motive, emotion and understanding in Vygotsky's cultural-historical work. As he argues in the quote given below, he suggests that Vygotsky turned to Stanislavsky's concept of subtext or 'understatement,' or clarification of his use of the term 'sense' understood as the local interpretation of more general societal meanings.

As Stanislavsky teaches us, underlying each line of a character's text in a drama is volition directed at achievement of certain volitional tasks—that is what understatement is—each line conceals volition or volitional task. It cannot be grasped from the meanings of these words themselves. It glimmers through the words, and can be understood if the motives of the behaviour of the speakers of those lines are known – Sense denoted the individual's emotional experience of the tense motivational attitude to the world, created by the volitional task. The hidden meaning of an action, including the generation of a word, can only be grasped if one knows the context out of which this task grows and the purpose for which it is solved. (Yaroshevsky 1989, pp. 314–315)

It is suggested that, in this way, motives make actions meaningful in social situations. The motives that guide social action in situations are formative in the generation of meaning for the actor and the observer. Changing the social situation of action can bring change in motive, which in turn transforms the meaning of actions that may, on first observation, appear identical. Taken alongside Vygotsky's desire to understand affect and cognition in a non-dualist account, there is a need to understand action, emotions and motive in human activity.

Thus Vygotsky presents us with a complex amalgam of ideas concerning the psychological drama of development and the importance of dramatic events in the social world. From his perspective there is a need to acquire tools or cultural artefacts that can promote creativity and imagination. In Daniels and Downes (2014) we considered the implications in terms of identity formation, following Smagorinksy's (2011) note about the kinds of mediation that are required and Vygotsky's (2004) assertion that creativity requires time, place and tools if it is to be enacted. The teaching of drama in schools can provide young people with this time, place and tools in which they may become more active in the creative shaping of their identities and ways of being. Through drama they become more active as creators of their own selves.

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Chapter 11
Creativity and the Cybernetics of Self: Drama, Embodied Creation and Feedback Processes

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Abstract What are the particular strengths and affordances for realising and cultivating creativity through drama and how do creativity processes work? This chapter investigates the creative system, feedback and interactions from a drama project involving young people in a performance-making program. The understandings that informed the work and analysis drew from systems theories of creativity as well as cybernetics. The understandings drawn from cybernetics included the importance of feedback processes, and how individually and collectively these might be understood as operating as what Bateson termed a 'cybernetics of self.' An examination of key vignettes from a dramatic playbuilding process highlights the importance of both flexibilities and constraints, and feedback interactions, including those that are individual and collective, fast and slow. The importance of immediate and embodied feedback as well as feedback that is more individual and reflective is characteristic of and integral to the development of dramatic work.

11.1 Introduction

The generation of new dramatic work features particular strengths and affordances for cultivating creativity. The embodied and collective nature of such can be investigated through drawing upon systems theories of creativity and cybernetics. The creation and maintenance of the creative process relies upon the operations of feedback and how a group comes together to operate as a collective thinking-acting-deciding system. Bateson's concept of a 'cybernetics of self' helps explain how the 'self-system' in such a process extends beyond the individual to embrace all parts and people within the system. This chapter investigates the creative system, activities and feedback processes used within a drama project involving young people. Vignettes are examined from across the performance-making program to explore

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the different types of feedback interactions and how they impacted upon the development of the work.

To begin with it is important to identify the understandings of drama and creativity that this chapter is based on before examining some of the dynamics and features of a dramatic process. Drama originally comes from a Greek word meaning 'play, action or deed.' Drama involves humans working together to imagine, create, enact and re-enact stories and scenarios. Drama generally involves people taking on roles within fictional contexts (which may be based on real life) to construct stories and events that are shared with audiences (Esslin 1987; O'Toole 1992). The dramatic creative process involves working with, selecting and arranging the everyday material of human existence, and often works with the human body as the primary tool for expression. Drama as an artform is concerned with the expression of ideas and emotions, which are mediated through different tools and shaped and crafted into forms and performances.

All dramatic and performance communications is in fact mediated. The concept of mediation as described in cultural-historical theory and the likes of Vygotsky (1978) explains how human activity and communications rely on mediation through signs and tool. For thoughts to be realised in the world, humans externalise and realise their internal ideas and intentions through the use of tools, signs and artefacts. Dramatic work involves mediation primarily through the human body, but utilises other 'tools' and diverse forms. Dramatic processes and products mediate and shape activity, and this can range from improvisation and process drama forms, to multi-media happenings, and polished theatrical performances involving a multitude of tools, signs and artefacts.

The work on creativity in recent decades has established that creativity is an everyday phenomenon, and arises when people combine elements in ways to generate novel ideas, actions and forms (Sawyer 2006; Feldman et al. 1994) that may be seen to have value (Robinson 2011). However to cultivate more valuable, polished or virtuosic forms of creativity often requires considerable domain knowledge and skill sets, practice, refinement and convergence (Gardner 1993; Glăveanu et al. 2013).

Creativity in drama is nearly always collaborative in nature. While parts of a process may involve individuals apparently working alone, such as when learning lines, or drafting a script, the realisation of the drama generally involves a group of players and often an audience as well. During a drama process or performance individual participants have to make countless creative decisions about expression, voice, action, transitions and so on, but these decisions are often made with and in response to others. As researchers such as Sawyer have identified (2006, 2013), when a group is working together in these creative processes they achieve a kind of 'group mind.' This collaborative creativity involves them operating in the moment to watch, listen, act and react, building on each other's offers, suggestions and actions. These micro-level interactions are familiar to drama practitioners through the field of improvisation and the work of Keith Johnstone (1979), Viola Spolin (1983) and others. There are a number of kinds of interactions that are identified as typical. These include:

- Making an offer (i.e., initiating dramatic action, often during an improvised scene, through verbal and/or physical and embodied means to help define the reality of the scene. E.g., establishing a scene is in a supermarket could be done verbally something like making a voiceover announcement of a 'hot special,' a physical offer might be through actions showing pushing a shopping trolley and miming putting items in it.)
- Accepting an offer, and trying to avoid
- Blocking offers (generally participants are advised against rejecting offers in improvisation processes if they want the improv to develop productively; however, more experienced improvisers can enjoy the challenges of working around blocks).

These kinds of interactions are evident in most devising workshops and include participants making offers, and not only accepting offers, but reinforcing them and extending upon the work of others to select, shape and resolve the dramatic work.

In the type of dramatic work I have been involved in, the role of the teacher or facilitator is important, operating in a co-artistic creative role. The idea of co-artistry has been described in dramatic teaching work (McLean 1996), and also in the creative teaching literature by Craft and colleagues (Craft 2005; Craft et al. 2001). In the type of collaborative development process which this case study reports on, McWilliam's concept of the 'meddler in the middle' (2009) is an apt description for the active co-creative role that the teacher or director plays; at times actively leading creative processes, at other times collaborating as an equal player, or stepping back while the participants lead.

Research in drama and creativities has further highlighted the importance of the collaborative, embodied processes central to dramatic activity (Davis 2010; Gallagher 2007; Jefferson and Anderson 2017). There has also been a range of work that describes the community or network through which dramatic work is generated as an eco-system and ecology (Kershaw 2007; Harris 2016). This research affirms the ways that community, contexts and environments enable creativity to emerge in theatre and performance work.

11.2   Creative Systems, Ecologies and Interactions

If we want to understand how creativity operates within drama processes it is instructive to look to models that not only focus on the individual, but also at the relationships and interplay with the group and environment where the activity takes place. Research and scholarship that can be drawn upon includes systems theories of creativity and creative ecologies and cultural-historical conceptions of human activity (Vygotsky 1930/2004; Engeström and Sannino 2010).

Mihály Csíkszentmihályi (among others) has developed understandings around a 'systems' model of creativity. He has proposed that creativity is not the product of individual genius, but that "creativity is a phenomenon that is constructed through

an *interaction between producers and audience*" (Csíkszentmihályi 1999, p. 313). He therefore recognised the importance of a range of factors beyond individual talents, including interactions with others and the culture. In the *systems model of creativity* he outlines three main elements*: the individual, the domain* and *the field* (Csíkszentmihályi 1999; Feldman et al. 1994).

While the connected and relational aspects of dramatic processes might be captured through a systems or ecology approach to creativity, attention must also be paid to the ways that the system behaves and players interact. The different types of interactions to examine include those that may relate to the individual but also those 'in between' actors and environments, through actions and interactions' (Glăveanu et al. 2013).

11.2.1 *Cybernetics, the Self-System and Feedback*

To understand the dynamics and interactions that occur within systems and which may feed creative emergence, the field of cybernetics provides further insights. Cybernetics unpacks the 'how' of system interactions and the importance of feedback loops. The term cybernetic is from the Greek, *kybernan*, meaning, "to govern." The development of cybernetics is therefore the study of control and self-regulation in machinery but also living organisms. The development of cybernetics built upon Norbert Wiener's work from the 1940s and the concept of 'goal-directed systems' (Weiner 1948/1965). The work of Bateson has further expanded understanding of how cybernetic systems include not only mechanical and technological but also human and environmental systems. For Bateson (1971), a cybernetic system may include mind plus body, plus environment. The system is one "whose boundaries do not at all coincide with the boundaries either of the body or what is popularly called the 'self' or 'consciousness'" (p. 445). As an example Bateson refers to a man cutting down a tree with an axe. The system therefore consists of 'tree-eyes-brain-muscles-axe-stroke-tree' and that total system has the characteristics of the 'immanent' mind (that which is internal to a subject).

A significant feature of a cybernetic system is the operation of interactive feedback loops. Effective cybernetic systems receive feedback and respond appropriately to ensure the goal is reached, and in machines this involves the operations of a 'governor.' The governor is the part of the system that senses changes in information received, and transforms that information into adaptive action (e.g., the engine is running too fast, the governor senses a problem and adapts the amount of fuel being fed into the engine to regain equilibrium). The responses may include self-correction, adaptation and additional action in response to *information* received. Information in Bateson's account is defined as "any difference which makes a difference in some later event" (Bateson 1971, p. 381). In a cybernetic system, goal-oriented actions occur, feedback information is received and processed but then responded to through some change or adaptation. This receiving, sensing and responsive action assists the system to maintain the goal orientation.

It can be argued therefore that participants in a creative drama process engage in a cybernetic process. That system and process also involves a 'cybernetics of self.' Bateson used this particular term in relation to understanding how people deal with alcoholism and addiction (Bateson 1971). He identified how the self-system is created and maintained through interactions and communications within a community and environment. Therefore, in an example he used, with addicts in an Alcoholics Anonymous group, actions to address their addiction rely on thinking beyond the individual. The self-system may include others such as an alcoholic's sponsor, or fellow addicts attending AA meetings. In such a situation, the self-system is made up of multiple players, who together may form a thinking-acting-deciding system, and assist a person to maintain their goal to not drink. To consider this as applied to a drama creative process, while a director or facilitator may initiate an idea for a work, for it to be realized, the involvement of thinking-acting-deciding from others in the system is required, and this extends beyond an individual operating alone.

Beyond the field of cybernetics, in more recent times the concept of feedback has become more widely researched in educational contexts. While few of these investigations have focussed on the operations of feedback in relation to creative practice, there is some value to be found in the research literature regarding feedback and student learning. This research has investigated and identified factors of effective feedback, particularly in relation to 'assessment' practices (Hattie et al. 1996; Hattie and Timperley 2007). Findings regarding what type of feedback may be most fruitful recommend the provision of quality, timely feedback that identifies how work can be improved (Black and Wiliam 1998, 2001; Chappuis and Stiggins 2002; Stobart 2006).

There is growing recognition of the importance of affective and relational components in how feedback is perceived and acted upon by students (Dowden et al. 2011; Poulos and Mahony 2008; Rowe and Wood 2008). Feedback as such is not simply information to be provided to students who may then choose to use it or not, but feedback is seen as arising from interactions and the roles and relationships within a learning system. Carless (2009) furthermore outlines the importance of trust in learning and assessment practices, including trust both in the quality of the feedback received and the one giving it: "For formative feedback to flourish it is necessary for students to be willing…to invest trust in the teacher" (p. 82). Carless advocates the development of trust through what could be described as rules of dialogic feedback through relations and interactions which focus on learning and 'notions of quality" (p. 90).

In considering the operations of a cybernetic feedback system in a creative process it is clear that there are multiple ways that feedback is and can be used to maintain and improve the work and outcomes. For the system to work effectively for a group, ideally there is a sense of trust and mutually beneficial, complementary relationships. Trust and complementarity help create a system which can come to 'think, decide and act' to create. Bateson notes however that human systems are complexes of various relationships, and may involve competing relationships and demonstrations of 'one-upmanship.' Unchecked, this type of activity can escalate and result in unhelpful and even destructive outcomes. In a creative drama process

one is ideally curating the dynamics of a group to work together as a productive system, with complementary contributions, and interactions that involve give and take, leading and surrendering.

Furthermore, in a dramatic process where a new work is being generated, the goal is to create a system that is not only about maintaining equilibrium (as may be the case with a machine)—but also about emergence and innovation. The goal is to create a novel experience, text or performance, arising from the imagination of many, the shape and form of which may be unknown. This creative process includes working with considerable tensions to shape contributions to result in new art works, forms, practices and ways of being. For a project leader, teacher, director (who often plays a form of 'governor' role) the challenge is therefore to recognise, value, and balance the input, managing or shaping constraints and 'desirable difficulties' (Bjork and Bjork 2011). These leaders facilitate processes to integrate the information and use feedback processes to channel the adaptive and productive action to achieve collective and individual goals—quite a challenge!

11.3   Exploring Creativity through a Drama Project: A Case Study

Now that certain understandings have been shared regarding creativity, drama, cybernetics and feedback, the next part of this chapter will move to examining the actions, interactions and feedback processes at play within a case study project. The case in question centres on a performance project involving thirteen young people aged 14–18. The project took place over a five-month period with the group meeting weekly. There were two phases of the project, with the first half focussing on a collaborative devising process and script generation, while the second half focussed on rehearsal and production processes that culminated with three public performances in a black-box theatre space. My role in the project was as a facilitator and writer working with a colleague who is an actor/director. Together we planned, led and supported the playbuilding and rehearsal process. My colleague also ran youth theatre workshop programs after school in several locations in the region so many of the young people involved were voluntary participants who responded to an invitation to audition for the project, which was entitled *Epiphany*[1] (Davis 2012).

The research sought to analyse the ways that creativity was supported and realised within a collaborative creative project that resulted in a new dramatic work. This analysis of this process focussed upon identifying key phases and activities, in particular examining the different individual and collective contributions made, and how feedback operated within the creative cyber-system. The initial examination of

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[1] A script for *Epiphany* was published; see references. Please note this published version was different again from that performed at the conclusion of the devising project, as a follow up performance included some new ensemble members and hence changes to cast and characters.

the process revealed the importance of both live and immediate feedback as well as more critical, analytic and reflective processes. To further appreciate the importance of these different ways of thinking and working it also proved instructive to draw upon Kahneman's concept of fast and slow thinking. Kahneman is a psychologist whose work includes notable research on judgment and decision-making. In his book *Thinking, Fast and Slow* (2011), Kahneman identified two types of thinking that humans engage in—fast thinking (or System 1) which is fast, intuitive, automatic and largely unconscious and slow thinking (or System 2) which is slower, more deliberate, analytical and conscious. He draws attention to the difference there may be between the remembering self (arising from System 2 thinking), and the experiencing self (more related to System 1). Both can be identified as important within a drama process, especially where a new work is intentionally created.

11.3.1 Initiating Constraints for Goal-Oriented Activity

As is often the case with creative work, we began by establishing certain creative parameters and constraints (May 1975; Beghetto 2016). We saw these parameters as enablers for initiating the creative work, providing some anchor points and frames but also open to interpretation, contributions and adaptation by the participants. The young people would help shape the characters and the narrative through a workshop process using a series of provocations to be designed by my co-facilitator and myself. The idea was that we would document what was created each week through various forms (including photographs, video, written notes, draft scripts and drawings). This work would then be reviewed and inform the following week's activities. I would take on the role of shaping the work into a draft script, one that the group would review and respond to, then rehearse and refine to perform in a theatrical show.

The seeds of the show that became known as *Epiphany* began with the current fascination many young people have with the gothic and magical, and possibilities for transformation. A range of stimulus material was collected which featured character profiles and pictures drawn from a book called *Very Special People* by Drimmer (1973/1985) and the 1932 film *Freaks* (Thalberg and Sharock). The cast of characters in the movie also featured some people profiled in the book, including a bearded lady, Siamese twins, a half-man half-woman, a strongman and various others who make up the circus 'freak' show. While the notion of the 'freak' show as it existed at that time may be abhorrent and inappropriate now, the book and movie also feature the humanity of the 'freaks' and the way they all look out for each other as a family would.

Drawing upon content from the book and movie, the workshop participants began to create their own profiles of different characters. We also decided to work with a Lewis Carroll inspired 'Alice' type character who is drawn into a fantastical new world that exists beyond a mirror. The initial prologue (and pre-text for the project) was as follows:

At certain times in our lives most of us feel out of place, like we don't fit in, like we don't belong. There are times when we feel like freaks, abnormal, unusual, unconventional, unwelcome. What if there was a place where the freaks, the unloved and unwanted could escape to? What if in moments of extreme hardship, in moments also of 'epiphany' the world was, in fact, transformed? Well, we have found the place where this is possible, and witnessed moments of magic and despair! There is a space beyond, a secret fantastical world, the door to which is revealed to only a few. We invite you tonight to leave your judgements at the door, your sense of what is real and unreal, what is honest and true, leave that all well behind. Trust me when I tell you – this journey will change the way you look at others and this world. It may surprise and horrify you, but I promise you now, it will not leave you untouched. Come now my sweeties, my freaks, my transient friends, as I introduce you to the sad and unfortunate, from times past and present, now captured as one!

The show would explore how people respond to being different, and aimed to convey ideas that young and not so young people could relate to: it's okay to be different because "In our mirror world everyone is accepted."

The dramatic form we decided to work with was vaudeville, as this form provided the opportunity to create short acts and scenes that could capitalise on the diverse skills and strengths of the cast. The final script was made up of twelve acts, each of which had a different performative element and character focus. We intended that these stand-alone scenes would also be linked, and across the course of the show they would combine to tell a tale. Notions of innovation and exploration were also introduced through the affordances of new media, particularly iPad applications for creating digital elements for the performance (e.g., digital puppets, sound effects, visual scenography and so on).

11.3.2 Exploring the Capabilities of the Self and the System: The Audition Process and Profile Building

To initiate the project with participants we held an open audition and set some parameters that would feed into the creative process. An invitation was extended to potential participants (many of whom had been in a previous production with us, and others participated in my co-director's after school drama classes) to attend an audition workshop. We asked participants to come along prepared to share a segment of dramatic work that went for one to two minutes. Participants could choose the style and form of their piece and we suggested it could also showcase their performance interests and skills. Therefore they could present a monologue, read a poem, sing a song, dance and so forth. Pieces could be performed with script in hand for those new to performing. There was scope within the eventual show for everyone to be included, so the audition was not about sorting and selecting/rejecting, so much as providing the means to showcase capacity and each person's strengths and contributions. This audition was also staged as a group session, so not only the directors but other auditionees could appreciate what each participant might bring to the show. We scheduled a block session of three hours and all

participants were present to view the work. The value of this event was that the concept of the drama and the communal system could be initiated and the interaction and feedback processes could begin.

Audition pieces included: three participants singing musical theatre numbers, one doing some physical tricks such as walking on his hands, two singing contemporary songs with guitar, one girl presenting Ophelia's monologue from *Hamlet*, two presenting comic poetry, one by Spike Milligan and another presenting one of Roald Dahl's revolving rhymes, another told a story and only one presented a more typical audition monologue. We did not realise it at the time but even the forms of some people's audition pieces ended up influencing decisions made later in the script.

The individual contributions to the creative process were further built upon in the first few weeks of workshops. Each week we introduced creative exercises and improvisational activities, but we also asked participants to work on character creation and profile building. This included using tools such as a profile sheet, which provided space for naming and describing various features and characteristics of characters and drawing them.

The interactive processes at play throughout this phase focussed on accepting the offers the individuals made regarding their performative selves, listening, sensing and responding. Responses included introducing further framing devices and constraints, and these provided some shape for creative explorations (e.g., providing pairs with a line of dialogue and a prop to be incorporated in a short scene, and a time frame to work within).

11.3.3   Fast Thinking and Embodied Work: Exercises to Facilitate Collaborative Creativity

The weekly workshops for the next phase included using immediate forms of feedback, both verbal and embodied. For example we began each session with a check-in with the participants, where they could reflect on how they felt that day, as well as anything about the process.

Throughout the first few weeks important work was facilitated to help build the coherence and connection of the group (and system) and to generate content for the show. Activities included warm up games and a number of structured improvisation exercises. The ideas, characters and content that were generated were later incorporated into the script and performance. What was instructive about these processes in relation to feedback was the sensory, embodied and immediate nature of that feedback. Participants often worked in pairs and small groups, looking, hearing, seeing and sensing. They would wordlessly make multitudes of small decisions responding in the moment to enact and create together. Some of the early movement exercises included:

- Boal's exercise Columbian Hypnosis, where working in pairs, one person leads the other with their palm approximately 20 centimetres away from the second person's face.
- Working in pairs as 'potter and clay,' one person moulding the other, exploring concepts such as your first fear, freak, spectacle, twisted, mystery.
- Physicalising ideas - what is it about your character that is broken and what is your gift?

This work was shared with the group and also captured via the iPad. Video documentation from this process was edited into video clips and at times informed follow up processes, such as making a movement piece that was used early in the final performance.

The creative work occurring in these sessions demonstrated some key features and types of feedback that are endemic to dramatic forming processes. Throughout the improvisational movement work, the participants did not have time to plan or to talk; they had to work in the moment. In the mirror work and working together they had to read the situation and respond very rapidly, making immediate decisions and acting upon them instantaneously. What is also significant about this type of improvisational movement is the way the imagination to imaginative work occur. Typically people think of imagination being what happens within the 'brain' of one person. However, in this case the imagination was being acted out and created external to any one person. They were 'doing' as well as 'thinking' at the same time as the other person with whom they were working. The 'what it meant' in fact often came after the action and creation, emerging through reflective discussions. The reflective meaning making was expressed in the form of verbal feedback from other participants, from us as directors, and from the participants themselves identifying what they were trying to convey and what had worked/hadn't worked.

In the experiential pair work the feedback was **immediate and embodied.** During these episodes the self extended beyond the individual and participants were providing and responding to feedback instantly through immediate external and internal processes. Adaptation and refinement could occur without words being exchanged as participants used real-time feedback systems to create in the moment (e.g., in a mirror activity a partner seeing what the other is doing and adapting their movement to match the leader). The feedback afterwards was often immediate, but more **verbal and reflective**. It tended to focus on what people felt worked and was encouraging, with some critical feedback and suggestions on how the work could be improved.

11.3.4   Fast and Slow Feedback Processes: Script Development

The development of the script involved combinations of fast and slow creative and feedback processes. Feedback occurred in the workshop space, as well as in between sessions, emerging through 'slower' thinking processes, away from the workshop space.

One creative exercise that fed into character development and eventual scripted work involved providing pairs (pairings changed each week) with two prompts, an object and a line of speech. The pair could choose an item from a selection of props and objects we brought in. The props reflected the performative style we were exploring, vaudeville. Objects included:

- Top hat
- Cup and saucer
- Mirror
- Cane
- Cards
- Gloves
- Perfume bottle
- Eye patch
- Masks
- Wooden box

We had also written a number of lines, or prompts, on pieces of paper. Each pair received one, distributed randomly. Phrases included:

- My secret dream
- The funniest thing
- My favourite place
- I don't love you
- Don't tell anyone but
- People like that

Pairs were then invited to explore physically what they could do with the objects, without speaking. Next they were asked to find a way to introduce the line into that interaction. Finally they were asked to build upon the line and interaction with other dialogue or words as they saw fit.

After exploring the material for approximately 20 minutes, pairs then presented short scenes to the group. There were a lot of pieces and ideas we felt were 'gems' that we could incorporate into the show, and so we then asked the pairs to write down their scripts or ideas and hand them in. An example of one script is below, created by two boys who were shaping up characters as two clowns.

> Line given: 'The funniest thing'
> T: My childhood was so bad; I never had a birthday party
> L: My childhood was so bad; I never had anyone, or a place to call home.
> T: My childhood was so bad; I slept on cold grass every night

L: My childhood was so bad (*picks up handkerchief*); this was my only comfort and warmth
T: (*Wraps cloth around eyes*) My childhood was so bad, I didn't see the sun for 12 years
L: My childhood was so bad; I never saw the sun (*goes to snatch handkerchief*)
T: My childhood was so bad (*mimes falling down dead*)
L: (*Picks up handkerchief*) It's the funniest thing, a sad ending, brings a new beginning.

During this phase '**slow feedback**' processes were engaged in that were about pausing, reflecting and consolidating the work. Within the sessions with the group this included having weekly discussions about the characters that were emerging with many becoming quite clear. There was space for input and feedback from participants, not only about their own characters, but about others' characters as well. These discussions were at times more analytical and critical, drawing upon evidence and examples to justify propositions. Outside of the workshop sessions these slower reflective processes were extended as my fellow co-director and I spoke and emailed each other about our reflections upon the process thus far. After three weeks we considered all the information that had been provided and been created in that time. This content included the audition pieces, the physical exercises, dialogue and profile creation, and writing. The co-director and I then developed a draft list of characters. This list was subsequently shared with the participants, who then helped refine the character ideas and give them names. For the two young men who had created the short scene presented above for example, it was proposed that they would be a pair of clowns who reflected the characters they had created at the last session. Initial character propositions for the characters follow below:

Queenie D – A painfully shy girl whose mother Bella B is a world-famous trapeze artist, but with little time for Queenie. Queenie feels like she has not inherited any of her parent's talents. Her sense of loss and isolation after she believes her mother has died leads to her being drawn into the mirror world.

The Magician – He can make their dreams come true but could he also be inclined to twist their dreams into nightmares. Can he help any of the mirror world people return to the physical world?

The Bearded Lady – She is a clairvoyant who knows when people will die. Maybe she can be a medium and can speak for the dead? She could identify spirits nearby; see Queenie's mother on the verge of the afterlife… is Bella still alive?

Painboy – He is a pain absorber – can hear and feel other people's pain. Could possess paranormal feature – cause objects to float and fly at will.

The Circus Master / MC - He could carry a ventriloquist doll – Tom Thumb type. Perhaps he has a real love/hate relationship with his doll.

Nora and Miamora, the Siamese Twins – They speak together and can feel each other's physical responses. One of them falls in love with a man on the other side of the mirror. To reach him she wants to be cut off from her sister by shattering a mirror.

B'rt - The Half and Half – The androgyne. Could do fashion parade type act – one half male, turn, other half female.

Bird Man / Happy Clown – (*wears suit tails*). He was growing wings until his enemies trapped him and ripped them from his body.

Sad Clown – He could have a little dog that does tricks – puppet doggie??

Broken Doll / Puppet Girl – She can be manipulated and directed by others (or she manipulates and directs others). Perhaps she is the Magician's assistant and becomes like a mother figure for Queenie?

The Broken Bride (The Girl with the frozen face) - She saw her reflection in the water and tried to drown herself, which took her into the mirror world. She tries to hide her face behind different masks. We could write her monologue in Shakespearean style – iambic pentameter, perhaps mirror aspects of Ophelia.

Batgirl - A batlike girl, hides in the dark, can see in the dark and through objects. Could wear big round black sunglasses, see physical and non-physical objects.

In most cases the characters were an extension of what had been demonstrated or offered by the young people in some shape or form to date—so the self-system was being realised within a collaborative system as well. Participants could recognise their contributions in what was presented back to them, and most expressed appreciation. The feedback was mostly positive about continuing to develop these characters and the scenes that would allow an opportunity for each character to have their 'moment' as it were.

The negotiation of each scene and character focus was ongoing, as behind the public face of the process; other interactions and exchanges occurred, some expressed privately to either co-director. These concerns included some of the participants' worries that one character had been created as the 'main role,' and in another case one participant being worried they would miss out on the chance to sing. These kinds of fears, rivalries and concerns are not unusual in a creative process, and it was important to address them so that we were able to move forward and not have the process compromised. Demonstrating ways to productively work through tensions was also important to the group, as there were strong social bonds and friendships developing between group members. These bonds contributed to a positive energy and enthusiasm within the group or cybernetic 'self.'

11.3.5 Embodied Feedback and Consolidation: The Photo Shoot

The creation of images showing participants physically forming and embodying their roles served as an important milestone and an aid for reflection and consolidation. A session that proved integral to the creative process and confirmed the

Fig. 11.1 *Epiphany* cast at photo shoot midway through process. (Photo by Alain Bouvier)

character creation phase occurred midway through the project when we had a photo shoot. For the photo shoot we assembled costumes and brought in make-up, wigs, props and objects.

Participants spent the morning dressing up and testing out the physical presentation of their characters and roles. Throughout the process the participants and I took photos and documented the session. A professional photographer also joined us and captured some images that were later used in publicity for the performance (see Fig. 11.1).

It would not be an exaggeration to say this day was the most important in the creative process. It provided participants with the opportunity to create, embody and see their characters come alive. It was exciting with lots of visual and verbal feedback being not only exchanged but acted upon as the characters became consolidated. The process of being and becoming was crystallised through the photos—a live embodied feedback system, with feelings of joy, discovery and achievement heightened through the framing provided by the digital tools.

It was also at this stage that I felt that the climate of trust had been realised. Participants had all endowed trust in the group, trust in the facilitators to lead them, and in each other. This sense of trust contributed to the script development in productive ways, as the participants appeared to trust that the outcome was going to be significant, of high quality and worthwhile.

11.3.6 Slow and Deliberative Feedback: Responsive Script Writing

After this seminal experience the slower, perhaps 'harder' work of writing and refining the script progressed. While I carried out most of the writing myself, I did so in a very responsive and I would suggest, cybernetic, way. Proposed character descriptions were written up and then taken back to the group with responses sought and alterations made. The following week I wrote a first draft of the script, sharing copies for a reading conducted by the cast. It is worth noting here that as well as participants being invited to provide initial comments and opinions, we also used a protocol for facilitating verbal feedback. This protocol was used to ensure that all participants could have a say and partly to ensure critical feedback was provided and not only the positive comments such as 'I love it!' We therefore adapted the *Tuning Protocol*, a protocol used by many teachers to discuss and provide feedback on student work (McDonald et al. 2003). Through this process all participants were asked to provide comments that included both the 'warm' and positive, and those that were 'cool,' critical, and evaluative. This feedback included comments about the characters, dialogue, storyline and other details of the show. This feedback was then incorporated into the next phase of the project.

The cast members were on the whole very pleased to see the impact of their ideas and creations; they could see how the script had extended upon their ideas. The system was therefore operating cybernetically to move the creative action on. As an example see the script extract below that began with characters created by the two male participants, the ideas arising from their improvisation, and script work presented earlier in this chapter. After discussions with the cast members, it was agreed that they wanted to use this opportunity to acknowledge the tough realities of childhood for many but to do this through humour. The final scene therefore starts as farce but morphs into a painfully truthful depiction of childhood, the clowns transformed into two wise mentors who have learned that suffering is the human condition.

Act 3 – A comedy routine revealing unexpectedly heart-rending tales of childhood
Sad Clown (SC):   She had a bad childhood. Who didn't?
Happy Clown (HC):   Well I didn't!
SC: Oh really?
HC: Yes really.
SC: I beg to differ.
HC: About your mother?
SC: Yes, your mother.
HC: My mother?
SC: Well, not my mother.
HC: Well, how about that time when your mother locked you in the cupboard and threw away the key?
SC: Well luckily my father found it and let me out. A mere oversight on her behalf. What about that time when your mother went on the great Australian tour and left you 5 miles from Gundagai?

HC:	Brilliant move, well I then walked 500 miles, arrived home safe and sound and I've never been fitter. An act of kindness on her behalf. What about the time your mother sold you to the gypsies so she could take up tap dancing classes?
SC:	Best years of my life – learnt all the tricks of the trade while tied under that caravan.
Both:	Childhood.
SC:	Yes those were the days.
HC:	Learning how to escape and fend for yourself …
SC:	Building a bulletproof shield (literally) and laughing in the face of verbal abuse.
HC:	Loving the isolation …
SC:	And the loneliness.
Both:	Ahhhh, luxury
HC:	So she's just like us hey?
SC:	Just like us.

11.3.7 Feedback, 'Notes' and Learning

For the remaining phase of the project the feedback provided was probably more typical of a performance rehearsal process. The directors took notes during rehearsal and verbal feedback was provided to the cast after runs of the show. Cast members were also invited to reflect, comment and contribute. Upon reflection I believe this process was made easy by the coherence of the group and the 'system' by this stage, and there was a strong sense of ownership of the characters, script and show.

At the end of the process we asked participants to complete a short feedback response sheet: a one page anonymous survey. It asked participants to identify three things they learnt, anything they'd like to see done differently or change and provided space for any other comments. These comments were transcribed and clustered, and while not a very extensive data pool, they provide some valuable insights about what the participants learnt and valued about the project. The young people:

- Enjoyed working with new people, making new friends, working together and building social skills (12 comments)
- Valued the devising process, including the different strategies used within the development process, creating the characters and being able to see something of themselves in the creations (10 comments)
- Appreciated the audition process and how welcoming and open it was (2 comments)
- Developed physical theatre and acting experience, as well as experience in new technologies (10 comments)
- Enjoyed working in a black box theatre acting space and exploring different staging arrangements (3 comments).

What this feedback suggested was the importance the relational elements played in the process. Participants felt like they had been part of a cybernetic 'system' or creative entity that had been responsive to their contributions. They had developed

their discipline based knowledge and skills and been part of an emergent creative process.

11.4 Concluding Remarks and Feedback and Interactive Processes in Drama

This chapter has investigated the creative process that led to the development of this new creative work, examining the operations of the group as a cybernetic system. This involved moving beyond the concept of collaboration, and people working 'together,' activating various feedback processes that enabled the group to operate as a 'cybernetic self.' Throughout the process a system formed which capitalised on individual and collective contributions. Participants were offered opportunities to explore ideas and experiences, with cybernetic feedback feeding the shaping of the collective creations. The concepts and dramatic forms were shaped through processes of sensing, adapting and acting which enabled the testing of ideas through fast and slow feedback, cognitive processes, imaginings and embodied explorations.

A range of different feedback processes proved important for establishing the group as a system and their commitment to common goals. The cybernetics of self operated both individually and collectively as we negotiated roles, ideas and performative acts, with players for the most part being flexible and open to responding to feedback and adapting to achieve individual and collective goals. To create coherence and commitment to the creative process a sense of trust proved important. Trust in part arose from participants seeing that their inputs were acknowledged and responded to–and extended upon in ways they felt were fruitful.

A key feature of dramatic work is the operation of 'thinking' through embodied action, and this type of feedback involves moment-by-moment sensing and responding. The energy of this collaborative creativity often fuelled the emergence of powerful dramatic moments and material. The mid-process photographic shoot was one such example, with the interactions leading to moments of quite joyful transcendence—the collective creation being so much more than what could have been achieved individually. This project, with its script development work, also highlighted the importance of slower, periodic, deliberative feedback, and structured feedback protocols to obtain constructive and critical feedback.

As to the implications of this chapter for others interested in creativity in drama, findings highlight the value of conceiving of the group as a creative cybernetic system, with due consideration given to the use of feedback exchanges and interactions to create quality expressive work. A creative project is not only about maintaining equilibrium but also nurturing emergence, and that requires fast and slow thinking, as well as embodied, feedback processes. Drama offers the means and forms for enabling collaborative forms of creativity, ones where participants can see aspects of themselves in the work and connect to ideas and the experience, ones where they

are provided opportunities to demonstrate and discuss, and to negotiate and realise personal and collective goals. This is indeed a powerful creative space and way of working!

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Part IV
Drama, Theatre, Therapy, Creativity

Chapter 12
Psychodrama and Creativity in Education

John Nolte

Abstract This chapter describes the contributions of J. L. Moreno to creativity theory and to methods invented to enhance creativity in everyday living. Moreno's extensive work with spontaneous role playing resulted in the development of the theory of spontaneity–creativity in which spontaneity, described as an unconservable energy, is seen as the catalyst of the creative process. His first endeavor was establishment of an alternative theater in which dramas were created and produced simultaneously by the actors, utilizing spontaneous role playing. This venture led to the origination of psychodrama, a method utilized in psychotherapy, personality development, skill training, and education. All forms of spontaneous role playing function as spontaneity training. Psychodrama is employed in formal education under several titles, role playing being the most common one. A survey of role playing in educational settings reveals that a wide range of subjects have been presented by this modality. Teachers who have taught this way are enthusiastic and express advantages of the method.

12.1 Introduction

> Creativity is *the* problem of the universe; it is, therefore, *the* problem of all existence, *the* problem of every religion, science, the problem of psychology, sociometry and human relations. (Moreno 1941, p. 126)

Psychodrama, a method of communication via dramatic action, and generally defined as a method of psychotherapy, was created by J. L. Moreno, M.D. A man of great originality himself, he demonstrated a life-long interest in the creative process. This fascination goes back, perhaps, to his childhood when he was an inveterate instigator of creative play with playmates. His favorite role to play was that of God, the ultimate Creator. Later, as a student at the University of Vienna, he frequently engaged children in the gardens of Vienna with creative story telling and enactment.

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He first began to form the notion of spontaneity as a critical element in the creative process as he observed how children responded to his challenges to their ingenuity.

Psychodrama was only one of a several methods that the inventive Moreno would conceive in his lifetime. The others include: *Das Stegreiftheater,* translated as Theater of Spontaneity; sociometry, a theory of social structure and methods for social reorganization; group psychotherapy; and sociodrama and role training which are variations of psychodrama. Although many of Moreno's innovations have been adopted in the fields of psychotherapy, business and industry, and education, they have often been appropriated without attribution and have largely ignored the theory of creativity upon which his methods are founded.

Psychodrama emerged from *Das Stegreiftheater* (The Spontaneity Theater) that Moreno had established in post-World War I Vienna with a group of actors as an alternative to the conventional theater. The idea was to create dramas in the moment as they were being presented, without script or rehearsal and depending solely upon the spontaneous creativity of the players. His experimental theater earned a loyal but small following in Vienna and later in New York under the name of Impromptu Theater. Disappointed that his innovative theater had not attracted sufficient attention to sustain itself financially, Moreno turned to other endeavors. While still in Vienna, Moreno had discovered how to make use of creative role playing to resolve the marital problems of an actor of *Das Stegreiftheater*. Now, in America, he set about developing the systematic use of role playing techniques to explore and alleviate emotional problems, the method that he called psychodrama. Moreno's first applications of psychodrama were with the inmates of the New York State Training School for Girls at Hudson where he had been appointed Director of Research. He used psychodrama in that setting for a variety of goals, for diagnosis, for psychotherapy, for training in human relations skills, and for teaching basic job skills.

Moreno's theater of spontaneity had served as a laboratory for research in creativity and spontaneity as he made careful observations of the actors as they struggled to develop the skills of working together and coordinating their respective spontaneous actions into an integral whole, a satisfying dramatic performance. Moreno became even more convinced of the function of spontaneity in the creative process. He published his ideas about theater, spontaneity and creativity, and roles and role playing in a book entitled *Das Stegreiftheater* (1923), which he later translated and published in English as *The Theater of Spontaneity* (1947).

12.2 Psychodrama

A psychodrama session typically consists of three different parts or phases: warming up, the action phase or drama itself, and sharing. Warming up in this context means preparing for action and begins as the group forms and ends with the selection of a protagonist. The action portion of the session is the psychodrama proper during which the protagonist reenacts memories of life events, fantasies, dreams, or

anticipations of future events. The third phase is called sharing and takes place at the end of psychodramatic action when members of the group reveal how the drama has affected them, usually by describing events in their lives of which they were reminded by the drama.

In 1946, Moreno delivered a brief paper at the Annual Conference of the American Psychiatric Association. In the paper he described the five instruments of psychodrama: the stage, the subject or protagonist, the director, the auxiliary egos, and the audience or group members. Although Moreno had constructed a psychodrama theater with a circular stage of three levels plus a balcony at Beacon Hill Sanitarium, a psychiatric hospital that he had established in 1936, he explained that a special stage was not necessary for the practice of psychodrama. A clear space in which action can take place is all that is required. The stage is a space in which any place in the universe can be established, depending upon the memory or imagination of the protagonist. "The stage space is an extension of life beyond the reality tests of life itself" (Moreno 1946b, p. 249). On the psychodrama stage, reality and fantasy are not in conflict. Thus the hallucinations and delusions of the psychiatric patient can be embodied, allowing the protagonist to encounter or experience them in ways that life itself does not allow.

The protagonist is asked to be him or herself on the stage and to portray his or her private world, to give an account of his or her daily life in action. "The verbal level is transcended and included in the level of action. There are several forms of enactment, pretending to be in a role, re-enactment or acting out a past scene, living out a problem presently pressing, creating life on the stage or testing oneself for the future" (Moreno 1946b, p. 250). The aim of psychodrama is not to turn protagonists into actors but to stimulate them to be and experience themselves more deeply and explicitly than they do in the reality of life.

The primary function of the director is that of producer and dramaturge. It is the director who provides the techniques which assist the protagonist in warming up to roles and scenes and a maximum of involvement. The director also must be sensitive to the often subtle clues that the protagonist gives and turn them into action. It is the responsibility of the director to maintain rapport between the protagonist and the audience and to make the production congruent with the lifeline of the protagonist. The protagonist provides the content of a psychodrama and the director the technical expertise to present it in dramatic form.

Auxiliary egos, helping selves, may be experienced aides to the director when psychodrama is used in mental health settings but more frequently are members of the audience called on to take roles in the psychodrama. Commonly simply called auxiliaries, they are called upon to play role of absent significant others, real or imaginary. Moreno describes auxiliaries as standing between the director and protagonist, assisting in exploring the protagonist's relationships. The auxiliary, Moreno says, has three functions: the actor portraying roles required in the protagonist's world; exploratory guide to the protagonist; and the social investigator assisting the protagonist in understanding significant others.

The members of the group, the audience, are the fifth instrument of psychodrama. They represent the world and world opinion. They serve as witnesses to the

protagonist's trials and tribulations in life. The group is usually the source of auxiliary egos. In the sharing phase of the psychodrama session, the group offers reassurance to the protagonist that the protagonist's life experiences are common to those of other people. Group members often express the conviction that they have themselves been helped by being present and witnessing the psychodrama, often reassured that their own life events are not so unique or abnormal as they may have thought.

"Psychodrama is a form of the drama in which the plots, situations and roles... reflect the actual problems of the persons acting and are not the work of a playwright" (Moreno 1940, p. 241). Modeled after life, anything that happens in life itself can be re-experienced in psychodrama. Moreover, the quality that Moreno called the surplus reality of the psychodrama stage allows the protagonist to go even further: "There is in psychodrama a mode of experience which goes beyond reality, which 'provides the subject with a new and more extensive experience of reality, a surplus reality'" (Moreno 1965, p. 212). By surplus reality, Moreno meant the flexibility of psychodrama in which time can be expanded or contracted, according to the protagonists' needs. A life changing moment jam-packed with significance can be explored at great length as the protagonist extracts and integrates the meaning of the event. Surplus reality also refers to the experiences that psychodrama techniques provide which life itself cannot. Protagonists can do battle or work out disagreements with absent significant others represented by auxiliary egos. They can say things that they have been heretofore afraid to express to their fathers, their mothers, lovers, spouses, employers and then, through role reversal, they can look at the world and at themselves from the perspective of those individuals. Surplus reality allows one to transcend the boundaries of sex, age, and even death. Males can play females and females can play males; adults can play children and children can play adults. As Moreno pointed out, there is no death in psychodrama, and a protagonist can have an encounter with a deceased parent, friend, or enemy. One can even engage with fictional characters from literature or legend. It is the surplus reality of psychodrama that allows us to reexperience old events in order to extract information from them that we may have missed the first time around. It is surplus reality that permits us to anticipate and rehearse for the future. It is this feature of psychodrama that enables us to externalize, encounter, and interact with our subjective thoughts and images. It does indeed bestow upon us "a new and more extensive experience of reality, and it is through surplus reality that the protagonist can achieve new, re-organized perceptions of self, significant others, relationships, and status in the world" (Z. Moreno et al. 2000).

In one of his discussions of psychodrama, J. L. Moreno wrote:

> The therapeutic aspect of the psychodrama cannot be divorced from its aesthetic aspect nor, ultimately, from its ethical character. What the aesthetic drama has done for deities like Dionysius, Brahma and Jehovah and for representative characters like Hamlet, Macbeth or Oedipus, the psychodrama can do for every man. In the therapeutic theatre an anonymous, average man becomes something approaching a work of art—not only for others but for himself. (1940, p. 240)

Psychodrama makes us the heroes of our own lives.

12.2.1 Variations of Psychodrama

There are a number of alternative forms of psychodrama including spontaneity testing and spontaneity training, role training, and a variety of psychodramatic exercises called "warm-ups" that are often used to begin psychodrama sessions. Like psychodrama, all are based on role playing. Moreno devised many of these activities as Director of Research for the New York State Training School for Girls as adjuncts to his primary responsibility for social organization of the inmates of the school.

Role playing is a natural activity for children as they seek to understand the society in which they find themselves. Moreno appears to be the person who introduced role playing as a purposeful activity into the world of adults. It was the perfect modality for the theater that Moreno wanted to originate, a theater in which the creativity occurred in front of the audience rather than in the playwright's studio and in rehearsals behind the scene. Role playing is a creative activity. Every speech and action must be improvised on the spot and is responded to by a second role player who must also improvise a response. This reflects Moreno's contention that psychodrama is modeled after real life wherein every interaction with another person is unique and improvised as it occurs.

Moreno distinguished several levels of role behavior: role taking, role playing, and role creating. Role taking is exemplified by actors in conventional theater. Here roles are defined by the playwright who provides both words and actions and further refined by the director and actors in rehearsal until the final version is created. Very little spontaneity is permitted in the performances and that largely is constrained to making the character portrayed come alive. Role taking is also being in a role in life itself, for instance, being a father, a mother, a teacher. Society rather than a playwright defines these roles and enforces them differentially. Thus, mothers and fathers have more freedom in their actions than do doctors and judges. Role playing allows the actor more freedom. It is playing a role for the purpose of exploring, experimenting, developing, training or changing a role. Playing a role can take the form of a test or as an episode in the course of a psychodrama or sociodrama. Role creating in spontaneity theater allows the greatest degree of freedom and makes the greatest demands on the creativity.

In classical, or protagonist-centered, psychodrama, the protagonists introduce the roles to be played, usually presenting them themselves initially. Other group members act as auxiliary egos, assuming the roles and playing them with the information imparted by the protagonist, and enhanced by the auxiliary's own experience in the world. Both protagonist and auxiliary create the action and words of the psychodrama.

In the other forms of psychodrama the director supplies a situation and assigns the protagonist a role to play. A situation involving a challenge that could occur in real life is described and the subject is asked to deal with the problem. A spontaneity test is designed to measure one's ability to access one's creativity when thrown into an unfamiliar situation. Moreno used spontaneity testing with the students of the Training School, assessing their abilities to express specific emotions adequately.

When a student was deficient in expressing courage, spontaneity training was indicated in which she was given situations that required her to be courageous. Spontaneity testing was used extensively in selection of officers of the Office of Strategic Services, forerunner of the United States Central Intelligence Agency, during World War II, and by both the German and the British Armies.

Role training is a form of spontaneity training that is used in applications of spontaneity drama in business and industry. In role training, the situation presented is one specifically tailored to events that the subject or protagonist is expected to encounter in real life. Role training has been widely used in business and industrial settings to train managerial staff (Maier 1952) as well as in professional education (Nolte 2008). The aim is to teach flexibility rather than specific ways to deal with specific problems. Role training is often referred to as role playing, a term also widely used in the field of education when spontaneity drama techniques are used for teaching purposes. A discussion of role playing in education comes later in this chapter.

Warm ups, another form of spontaneity theater, are group role playing exercises that are intended to help participants get ready for more extensive psychodramatic action (Weiner and Sacks 1969). The warming up process is the initial phase of a psychodrama session when the group members and the director prepare for action. A warm up is a structuring of group activity to assist the group in getting under way. A warm up may be an instruction that each group member follows in turn, such as, "Make a statement reflecting how it feels to be in this group." A warm up may have group members pair off and interact is a specific way: "Learn as much as you can about each other in five minutes. Then introduce your partner to the group when we come back together." And a warm up may be a group activity: "Mill. Move around randomly and meet someone whom you have never met before–non-verbally."

12.2.2   Sociodrama

Moreno created another spontaneity role playing approach that is usually considered as a separate method despite the fact that it emerged from psychodrama:

> Another method developed out of the psychodramatic procedure....Many times people were found in the audience who suffer deeply from a major maladjustment, but of a collective and not of a private nature. One suffers because he is a Christian, a Jew or a Communist, or for instance he suffers because he is a Negro living in Harlem, New York City. (Moreno 1943, pp. 442–443)

Roles, Moreno pointed out, have two sides, a private one and a collective one. The many roles of the mother that are manifested in a society overlap in large portions. At the same time, each mother creates her role in a unique manner. Thus, there is *the* social role of the mother and the individual role of *a* mother. "A special form of psychodrama was necessary which would focus its dramatic eye upon the collective factors. This is the way sociodrama was born" (p. 437). Psychodrama is an

action method for exploring interpersonal relationships and private beliefs; sociodrama is an action method for exploring intergroup relations and collective beliefs.

In August 1943, a race riot occurred in Harlem. Afterward, Moreno conducted a number of sociodrama sessions at his New York Psychodramatic Institute, providing a creative way of exploring the event and reducing tensions between white and African-American residents. Members of both races attended, including some who had been actively involved in the rioting. The dramas revealed the underlying dynamics of the dominance of the one race over the other that influenced everyday activities and eventually resulted in the rioting. Moreno, who had been subjected to the anti-Semitic prejudice of Vienna, always looked for the opportunity to champion the disadvantaged or bullied.

Sternberg and Garcia (1994) detail the many ways in which sociodrama can be utilized in their comprehensive book on sociodrama. The authors discuss in some detail how sociodrama can be used in history, cultural studies, foreign languages, health and life skills, literature, psychology, adult education (assertiveness skills, for example), and religious education.

Many applications of spontaneity methods in educational activities are sociodramatic rather than psychodramatic in nature. If role playing involves actual people, one of whom is the protagonist, it is psychodramatic. If the roles are generalized or fictional, the role playing is sociodramatic. Since many of the situations played out in educational settings are hypothetical rather than actual situations, and the roles are generalized social roles, they are sociodramatic. In role training activities where a trainee may be exploring an incident with a real employee, supervisor, patient, or client, the process is psychodramatic. Moreno also pointed out that every psychodrama has sociodramatic aspects and every sociodrama contains psychodramatic elements.

All of these procedures are collectively referred to as action methods or Morenean methods. *The basic activity of each of them is role playing. A basic objective of each is increased spontaneity in the participants.*

12.3 Spontaneity–Creativity

Creativity has often been studied from the end result of a creative act: analysis of important inventions, great paintings, musical compositions and other artistic objects, philosophical and scientific theories and the like. Moreno directed his attention to the process. He was more interested in everyday creativity and did not think that analyzing the works of recognized geniuses would help people learn how to be more creative in their real life interactions. His many experiments with role playing led to his theory of spontaneity–creativity. Spontaneity and creativity are not identical processes, he says, but they are strategically linked. It is a theory that must be understood from the perspective of Moreno's existential philosophy rather than from the positivist, objectivist philosophy of natural science. There are four major

concepts in Moreno's Theory of Spontaneity–Creativity: spontaneity, creativity, conserve, and the warming up process.

12.3.1   Spontaneity

The word spontaneity is derived from the Latin *sponte* which means "of free will." The doctrine of absolute determinism, the notion that once the universe is set in action (i.e, as in the Big Bang Theory) everything that follows is inevitable, every phenomenon the effect of what has gone on before, is a contentious idea but one that is firmly held by many scientists. Sigmund Freud even claimed that he had demonstrated that "...there is nothing arbitrary or undetermined in psychic life," including slips of the tongue in his *Psychopathology of Everyday Life* (1914, p. 282). The behaviorism of B. F. Skinner, considered one of the most important psychological theorists of the twentieth century, was equally deterministic and held that all behavior was determined. There is no place for free will in a deterministic universe.

The concept of spontaneity implies that human behavior is not so totally determined as Freud and Skinner insist:

> According to this theory there can be, in the development of a person, original moments, truly creative and decisive beginnings without any horror vacui, that is, a fear that there is no comfortable past behind it from which it springs. (Moreno 1946a, p. 103)

Other philosophers beside Moreno saw the principle of spontaneity in the universe and in human behavior. Charles Sanders Peirce, considered the founder of pragmatism, who wrote extensively about spontaneity, and Adolf Meyer, called the Father of American Psychiatry, are two examples:

> Now what is spontaneity? It is the character of not resulting by law from something antecedent. Thus, the universe is *not* a mere mechanical result of the operation of blind law. The most obvious of all its characters cannot be so explained. (Peirce 1931, p. 162)

> By the person's spontaneity, I mean that which the person may be expected to rise to and to rise with on his own, 'sua sponte,' with his 'spons' and 'response' and finally 'responsibility.' It is more than 'muscle twitch' or reflex, an incorporation and integration of wider relationships. (Meyer 1941, p. 151)

Moreno's theory of spontaneity–creativity had four major concepts: spontaneity; creativity; conserve and its sub-category, cultural conserve; and warming up. Spontaneity is a unique form of energy, an "unconservable" energy that is distributed throughout the universe. Moreno recognized the problem with such a concept. It violates a very basic law of classical physics, the Law of the Conservation of Energy which holds that energy can be neither created or destroyed. Energy can only be transformed from one kind to another, electrical energy to light or heat, for example. Perhaps, Moreno mused, quantum theory would provide an answer to the problem of unconservable energy. In my book on Moreno's contributions (Nolte 2015), I suggest that the quantum potential may very well be identical to Moreno's

concept of spontaneity as an unconservable energy. In Moreno's theory, spontaneity is a constituent of all levels of creative activity, physical, biological, and human. "Spontaneity propels a variable degree of satisfactory response which an individual manifests in a situation of variable degree of novelty" (Moreno 1953, p. 42).

Spontaneity is experienced by the individual as acting freely, free from external influences and from internal influences that one cannot control. Spontaneity reflects flexibility in the way one responds to the exigencies of life and is contrasted with rigidity and stereotypical behavior. Capacity for spontaneity is not fixed. It is a factor with which everybody is endowed and can be increased through spontaneity training.

In working with the players of his original Spontaneity Theater in Vienna, Moreno observed a phenomenon that he called the spontaneity state. He described it as a distinct psychological entity, a liberation, the state of creative production. Children achieve the spontaneity state when they become so totally involved in their play that they lose track of the rest of the world–unaware that they are hungry until they are called in to dinner. Spontaneity states are intense and of limited duration, alternating with periods of relaxation. Time is different in the spontaneity state and the protagonist of a psychodrama cannot predict how long a drama has lasted in conventional time. Thus the spontaneity state has features of altered states of consciousness. It is the condition that poets find themselves in when they feel an impulse to write or a business man when a great idea comes out of the blue. "It is the moment of Love, of Invention, of Imagination, of Worship, of Creation" (1946a, p. 141). The spontaneity state and anxiety are incompatible and Moreno describes anxiety as a lack of spontaneity. The spontaneity state appears to be very similar to the concept of flow, named and described by Míhály Csíkszentmihályi (1990) from his research on what makes people happy.

12.3.2   Creativity

Creativity is usually defined as an ability to use imagination or original thinking to come up with something new. Moreno's definition is entirely different, although his descriptions are not necessarily illuminating. For example, he wrote: "Spontaneity and creativity are thus categories of a different order; creativity belongs to the categories of substance—it is the arch substance—spontaneity to the categories of catalyzer—it is the arch catalyzer" (1953, p. 40) and "Creativity is the elementary X, it is without any specialized connotation, the X which may be recognized by its acts. In order to become effective, it (the sleeping beauty) needs a catalyzer—spontaneity" (p. 45). Moreno also said, "Creativity manifests itself in any series of creativity states or creative acts. Spontaneity and creativity are not identical or similar processes. They are different categories, although strategically linked" (1955, p. 109).

Moreno's notion of creativity can be understood as the potential for being created. Everything in the universe, according to accepted theory of classical physics,

was present in the first moment, the "Big Bang," and has emerged since. Stars, planets, black holes, Earth, plant and animal life, human beings and all the inventions, sciences, philosophies and theories created by human beings have emerged in their time and place. All belonged to creativity until they became manifest, according to Moreno's concept of creativity.

12.3.3 Conserve

In Moreno's spontaneity–creativity theory, the interaction of spontaneity with creativity results in a conserve. A conserve is the product of a spontaneous–creative act. An especially important class of conserves are designated as cultural conserves and are the products of human creativity. A prime characteristic of a cultural conserve is that once created it can be replicated technologically any number of times. This allows a whole society to benefit from the creativity of a single member. That is the advantage of the conserve.

The drawback of the conserve, according to Moreno, is that we as a society have concentrated so much attention on conserves that we have neglected to nurture the creative process itself. In the field of education, this is reflected in the emphasis upon teaching content to the detriment of fostering creativity.

Another advantage of the conserve is that at this stage in human history, conserves play an important role in creative activity. Alphabets and languages, which are cultural conserves, are essential to the creation of novels, essays, theories and the like. Art forms of all kinds depend upon tools and technologies which are themselves the products of human creativity. Conserves, the result of creative acts also serve as the stimulus for other creative acts. Great paintings, musical pieces, patriotic symbols, political and scientific theories have all stimulated the creation of new conserves.

12.3.4 The Warming Up Process

The warming up process is the last of the four major concepts of spontaneity–creativity theory. Warming up is defined as the "operational" manifestation of spontaneity, quotation marks used by Moreno (1953, p. 46). Warming up can be thought of as preparation for action. Warming up is used in many contexts. We warm up to emotion such as fear, love, anger and desire as well as to more complex mental states. We warm up to roles we take in everyday life as well as those we play in psychodrama. An individual warms up to the role of director and then warms the group up to psychodramatic action. Another warms up to the role of protagonist. There is some degree of warming up in every thing we do. Warming up "is a general condition existing before and in the course of any creative act—before and during

an act of sleeping, eating, sexual intercourse, walking, artistic creation or any act of self-realization" (Moreno 1955, p. 111).

The warming up process is initiated by one of a number of starters. Starters can be physical, mental, or social. Simple emotional states such as anger, love, fear, or desire, represent physical starters. More complex mental states such as curiosity or convictions are mental starters. Interpersonal or social starters involve interactions with others. In role playing, warming up typically involves social starters.

The basic proposition of spontaneity–creativity theory is that the creation of something new, whether a thing, a theory, or an action, results from spontaneity interacting with creativity. Although spontaneity is defined as an energy, the interaction with creativity is *not* like the interaction of electricity with a lightbulb in which one form of energy is transformed into another. Moreno suggests that spontaneity acts more like but not identical to a catalyst which may be necessary for a chemical process to proceed but which is not altered in the event. The effort that goes into creating is a conventional energy like the chemical-electrical energy in the brain. Spontaneity is a far more subtle energy. An analogy might be a drone airplane which is directed by radio frequency energy. The drone receives information to fly in a certain direction, to take pictures or drop bombs, and to return to its base by radio. However, it uses its own sources of energy to carry out the instructions that it has received. Radio energy only provides information, not the energy necessary to perform.

From Moreno's various discussions of spontaneity, it may be appropriate to think that we access or "tune in to" spontaneity (or fail to) by warming up to a role or action. Like the drone that has a receptor for the radio energy that controls it, a receptor that is tuned into the required wave length, we have an ability to access this unique energy of spontaneity. In doing so, one achieves a state of perceiving one's situation accurately and can behave appropriately, even if the situation is an unfamiliar one calling for action which the subject has never made before.

The interaction between spontaneity and creativity is not a one way affair. It is reciprocal. Spontaneity interacts with creativity resulting in a conserve. The conserve, such as a great painting, piece of music, philosophy, or theory can then serve to warm up others to the spontaneity state and new creativity.

Spontaneity is the important factor for understanding the creativity process in human behavior. Spontaneity is the constituent of the creative process that is susceptible to training. One's ability to access spontaneity can be promoted and increased by training. Hence, one can learn to live more creatively.

12.4 Spontaneity Training

"It was in the year 1923 when I set forth the dictum: 'Spontaneity Training is to be the main subject in the school of the future'" (1946a, p. 130). Nearly 100 years later there is little evidence that schools have moved from an emphasis upon content to teaching students to be more creative. Moreno was ever the optimist when it came

to predicting the impact of his contributions to society. He was also much too far ahead of his time. Those of us who have experimented with his methods find this unfortunate. At the same time, it turns out that a number of teachers at all levels of formal education have engaged in spontaneity training, more often than not unaware that they were doing so. The goal of spontaneity training is for the subject to warm up to the spontaneity state. All forms of spontaneous role playing serve as spontaneity training.

Moreno and his collaborator, Helen H. Jennings (1936), used spontaneity training extensively with the students of the New York Training School for Girls. The students were from 14 to 18 years old, committed by juvenile courts to the School for delinquency, often sexual in nature. They came from a broad range of backgrounds but had in common a deficit of nurturing and training in socially acceptable behavior. Spontaneity training consisted in presenting subjects with a series of situations such as they might encounter in life. The situations might reflect home life, work situations, or other aspects of community activities.

An example of a girl being trained as a sales clerk in a store is given in the Moreno and Jennings article. The anxieties that a novice salesperson experiences in learning on the job are reduced by giving her an opportunity to experience the act of meeting and interacting with customers in a store that is not fully in earnest but which is brought as close to being real as possible. The performance of the subject is then discussed by the group. They may consider the sincerity of emotions, speech, facial expressions and other mannerisms, knowledge of the products, and relationships to the persons acting opposite. According to Moreno and Jennings (1936), the student spontaneously outgrows her shortcomings through continued training sessions.

Spontaneity training at the School for Girls included the training of simple emotional states, training in communication, training in subject matter, and vocational training. One result of spontaneity training was learning to warm up to emotions, roles, and actions more adequately. The most striking effect was "the general increase in flexibility and facility in meeting life situations, within the organic limitations of the particular individual" (Moreno and Jennings 1936, p. 25).

12.5   Psychodrama in Education

Psychodramatic techniques were used as early as 1928 when Moreno conducted spontaneity training sessions for managers of Macy's Department Store (Moreno 2015). The first journal article documenting the use of a psychodrama in teaching appeared in 1939 when J. G. Franz of Columbia University reported using spontaneity training to reduce anxiety in students in a public speaking course. The first book on Morenean methods in the field of education, *Psychodrama and Sociometry in American Education,* was published in 1949 (Haas). It consisted of more than 30 articles by as many authors describing a wide range of applications from early

elementary grades through junior high school, high school, and college levels to community projects.

Since 1934, there have been dozens if not hundreds of articles in professional journals and books describing or advocating the use of spontaneity drama methods for teaching. The authors of these papers have used the terms psychodrama, sociodrama, spontaneity training, role training, simulations, and role playing in describing the use of spontaneity methods for teaching an exceptionally wide range of subjects. All of these terms are variations of the guided spontaneity role playing methods introduced by Moreno. Few of these papers describe the spontaneity training exercises that Moreno devised. Nonetheless, their incorporation of spontaneous role playing makes them spontaneity training events. It seems very likely that the number of events reported in professional journals is an infinitesimally small percentage of the total number of role playing events that have actually occurred in the classroom, considering the effort that goes into writing a professional paper, not to mention having it accepted.

12.5.1   Results of Role Playing in the Classroom

Teachers who have written about role playing experiences are generally decidedly enthusiastic. Typical is Stanford (1974), who claimed that role playing was a far more powerful teaching method than most teachers believe. Role playing has advantages, he writes, and can make contributions like helping students develop empathy for characters in literature and insight into their behaviors that sit-and-talk approaches cannot accomplish. It is also, he writes, faster than any other method. McCalib (1968) chimes in: "Now traditional lecture and discussion methods, honest literature teachers will admit, seldom produce such a state of mind [as role playing]. Emotion and reason are seldom effectively brought into play simultaneously" (p. 42). Marcus and Marcus (1977) proclaimed that in teaching history, "Sociodrama may also help to make people who lived long ago come alive; problems seem real, and social history becomes more significant" (p. 272). Resnick and Wilensky (1998) add that "role-playing activities can play a powerful role in mathematics and science education—particularly in the study of the new sciences of complexity" (p. 153).

Bowman (1949), a strong advocate of role playing in the field of sociology, summed up his recommendation for sociodrama this way:

> The sociodrama departs from the traditional book-and-talk approach. It introduces processes of social interaction directly into teaching and learning. An infinite number of roles and relationships can be dramatized. Even those situations involving thousands or millions of persons can be reduced to a relatively few type-roles. This method can be applied to a wide variety of relationships in international affairs, industry, government, the family, and the local community—in short, wherever people desire to understand others more adequately and to understand themselves more adequately in relation to others. The potentialities of dramatic role-playing seem very promising and need to be explored thoroughly in the interest of intelligent, cooperative living. (p. 199)

Hopkins ([1971](#), p. 177) offered a full dozen goals that role playing and socio-drama might serve:

1. To develop a situation analysis
2. To present alternative courses of action
3. To develop better understanding of problems
4. To develop better understanding of others
5. To prepare for meeting future situations
6. To increase spontaneity and encourage creative interaction
7. To give students practice in what they have learned
8. To illustrate principles from the course content
9. To maintain and/or arouse student interest
10. To stimulate discussion
11. To develop more effective problem-solving ability
12. To develop desirable attitudes

Moreno noted that formal education is only a small part of the learning we do, that learning in life itself goes on throughout one's existence. He pointed out that from the time they are infants, children learn through spontaneous actions how to meet their needs. "[The child's] learnings are strictly related to acts, its acts are founded on needs. There is, say, hunger (a *need* of food), there is *action* to get food, there are *learnings* about food" ([1946a](#), p. 140). When the children enter school, however, they are forced into absorbing content unrelated to their needs, lessons, facts, etc. "which remain like a foreign substance in an organism" (Moreno [1946a](#), p. 140). What they learn has little relation to life outside of the school. After sitting and being drilled in basic subjects for a couple of hours, it is no wonder that children uniformly prefer the opportunity to engage in spontaneous action during recesses and after school lets out.

The advantages of action learning methods are that they engage the whole person of the student, not just cognitive and memory functions. It is becoming obvious that learning involves the total person, cognition, memory, the emotions, and the musculature of the student. Spontaneous drama methods allow for the embodiment of information and knowledge. It is one thing to read about a character's thoughts, words, and actions in a novel; it is different to enact and experience being that character in that character's situation through role playing. Answering questions from classmates and justifying the character's actions deepens the experience. Action learning is more natural, and more like everyday learning from life events, than traditional methods. It is more interesting than being talked to or engaging in questions and answers. Role playing results in a more integrated, experienced, felt understanding of the material. By playing roles that one does not take in life, an individual experiences aspects of the self that would not otherwise be given expression. In a sense, one's self is expanded through role playing.

12.5.2   Research

There are far fewer articles on research of role playing than on applications. Results on the effects of educational role playing are mixed. In a highly sophisticated study of disadvantaged kindergartners, Rosen ([1974](#)) found that: "Taken in their entirety

the experimental findings indicate that acquisition and practice in [sociodramatic] play skills improves problem-solving behavior among culturally disadvantaged children across a variety of social cognitive domains." (p. 926). Hartshorn and Brantley (1973) had found similar results in another well- designed study of second and third graders. Their results of having students play community roles like policeman, pilot, doctor, bank teller, housewife, etc. showed improvement in "problem solving skills and acceptance of social responsibility" (p. 245). Wyn and Stegink (2000) discovered that students who role played mitosis did better on testing than students who did not engage in role playing.

Kidron (1977) reviewed approximately 20 research articles on the effects of role playing. The studies sought to test the effectiveness of role playing in changing attitudes, increasing creativity, and fostering behavioral changes. Through empirical research, Kidron came to the conclusion that role playing is effective for training and educational purposes. His call for more research on this experiential method is certainly valid. Kidron recommends that such research include determination of behavioral objectives and specific and valid evaluative criteria for each experiential method. Research should also provide a comparison of role playing methods with conventional educational strategies.

Actually, empirical research into spontaneity drama methods faces daunting tasks. There is the matter of how to handle the wide variety of subjects in which role playing has been tried. Added to that are the very different ways that the method has been used by different teachers and for different issues within a given subject. Even the objectives of role playing vary greatly.

A related problem facing both the practice and research of role playing in education is training in directing psychodrama, sociodrama, or role playing activities. None of the authors in the articles cited indicated that they had any such training. Perhaps this was just an omission but one is left with the impression that most of the practitioners of role playing have had no real training. Rather, they have read about role playing in journal articles and books, heard about it from colleagues, or have seen a demonstration perhaps in an in-service training event. I am unaware of any formal training programs designed especially for the use of spontaneity drama in teaching, let alone for teaching creativity. Some may exist although I have not come across them. Even authors advocating the use of role playing do not mention training. They seem to think that any teacher can conduct a role playing event.

12.6   Summary

Moreno introduced a systematic form of children's creative play into the adult world. He called it role playing. Moreno first established a novel form of theater, *Das Stegreiftheater*, which presented spontaneous dramas created as they were performed. This led to the use of spontaneity techniques to restore emotional disequilibrium, a method of psychotherapy called psychodrama. Psychodrama proved to have educational functions as well as therapeutic ones.

A theory of the creative process, the theory of spontaneity–creativity, grew out of his experiences with role playing. He hypothesizes that a unique energy, spontaneity, interacts with creativity to result in emergence of a novel entity. One sees the effect of human spontaneity in actions which are adequate responses to novel situations or novel responses to old situations.

Psychodrama, although seldom referred to as such, has long been sporadically utilized in the classroom under a variety of labels. Role playing is the most common one. Although it is sparsely employed, teachers who have employed role playing tend to be enthusiastic. Moreno found role playing to increase spontaneity and hence creativity in life. There is reason to think that the same would be true for role playing in the classroom.

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Chapter 13
Reconnecting Learning to Development Through Performance Ensembles

Carrie Lobman

Abstract Economically, politically, and socially, society needs people who can work with others different from themselves and, as a group, create innovative solutions to collective problems. With its focus on ensemble development, drama education is an attractive training ground for this kind of transformation. In the theatre, the ensemble is not just a collection of individual actors, but is the unit that comes together for the performance to be successful. In this chapter I will show how bringing the tools of theatrical ensemble building to non-theatrical settings can create an environment where learners and teachers learn to listen, support, and create with others, while engaging with all kinds of content. I share three examples of ensemble-focused teaching, ranging from a preschool classroom to an outside-of-school youth development program. I argue for a Vygotskian inspired approach where the focus shifts from the individual learner acquiring knowledge, to the ongoing creation of a performance ensemble whose job is to support the development (and learning) of the group.

13.1 Introduction

We are a social species. From birth, we are inseparable from the social units of which we are a part (Gergen 2009; Rogoff 1994). It is our ability to work together, to create together, and to develop together that is critical for individual and species-wide development (Holzman 2010, 2016). This acknowledgment of our sociality does not deny individuality. Human beings learn and develop as unique individuals through/in relationship to the groups we are part of and which we participate in creating (Newman and Holzman 1993).

Yet for the most part, our formal learning experiences are premised on the individual learner acquiring knowledge and skills. The primary focus of classroom teachers and their students is not supporting the growth of the class as a unit, but on

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helping students learn individually while surrounded by other students. We teach children to attend to themselves, not worry about what their friends are doing. We assess, reward, and punish individual success and failure.

Educators are increasingly aware that this obsession with the individual learner has a negative impact in multiple ways, including hindering the transition from school to the rest of life. Outside of school people need to be able to work with others who are different from themselves, and to work as a group to come up with innovative solutions to collective problems (Gergen 2009; Saavedra and Opfer 2012; Trilling and Fadel 2009; Wagner 2014). The gap between what we know about the sociality of human life, and what most people experience in school must be addressed if we are to meet the needs of children and adults in the twenty-first century (Gergen 2009; Saavedra and Opfer 2012).

Many educators at all levels of education are working to address this gap by emphasizing collaborative work (Hmelo-Silver et al. 2013). In successful group work students come to understand that they are interdependent and that individual learning occurs when people work together to help each other learn (Cohen and Lotan 2014; Darling-Hammond et al. 2015). To be in sync with a relational/social understanding of human life, educators must dramatically shift our attention from the individual to the group. One way to make this shift is to borrow from one of the most successful arenas for developing groups—theatre and theatre education. In the theatre, the ensemble is not just a collection of individual actors, but is the unit that comes together for the performance to be successful. Bringing the tools of theatrical ensemble building to non-theatrical settings can create an environment where learners and teachers learn to listen, support, and create with others, while engaging with all kinds of content. In the remainder of this chapter I will go deeper into the theatrical understanding of ensemble, introduce a performatory approach to learning and development, and present three examples where educators used the methods and tools of theatrical ensemble building in non-theatre settings.

13.2 Theatrical Ensembles

The dictionary defines the ensemble as a group where "all the parts of a thing [are] taken together, so that each part is considered only in relation to the whole" (Ensemble 2017). Part of what I find joyful about watching a skilled ensemble perform, whether it is in *A Midsummer Night's Dream* or an episode of *The West Wing*, is watching the group work together. "In group performance genres the creativity of the performance depends on an intangible chemistry between the members of the group" (Sawyer 2003, p. 4). A focus on the ensemble does not deny the individual talent of the actors. It is in the creation of the ensemble that individual actors are showcased. When an ensemble is working well, every performer is trying to make the ensemble look good, and in doing so the "whole [becomes] greater than the sum of the parts" (Sawyer 2003, p. 12). The ensemble becomes a star of the show.

13.3 Drama Education

Theatre's ensemble nature has brought drama education to the attention of those who want to bring social emotional development, respect for diversity, and the skills of team building into schools (Lee et al. 2015). Even in very competitive schools, theatre classes can be a space for cooperation and collaboration. "Working together in the social and egalitarian conditions of ensemble based drama, young people have the opportunity to struggle with the demands of becoming a self-managing, self-governing, self-regulating social group" (Neelands 2009, p. 10). Being part of an ensemble in the theatre classroom can involve learning to create a new kind of common culture in diverse schools, one that "might transcend historical mistrust and fear of the other" (Neelands 2009, p. 4).

Drama educators see their classes as a model for how to behave in the rest of life (Lee et al. 2015; McLauchlan and Winters 2014; Neelands 2009). Students can learn to work together and create community in the theatre classroom, while they continue to learn science, history, and math in the same old individuated ways. However, we can also let the power of ensemble building transform how we practice all teaching and learning.

13.4 Ensembles Everywhere

When I received the invitation to write a chapter on ensembles for this book, I was very pleased and a bit surprised. I am not a "theatre person." I discovered the value of theatrical ensembles and of performance through my participation in social therapeutics, an unusual group therapy approach, and via my work using this approach as an educator. Social therapeutics is based on an understanding of human beings as ensemble performers of our lives (Newman and Holzman 1993; Holzman 2010, 2016). It emerged almost 40 years ago as a challenge to traditional psychology's focus on the individual. While social therapy began as a form of radical psychotherapy, it is now used by people all over the world including healthcare professionals (Massad 2003), business people (Salit 2016), youth workers (Gildin 2014; Lobman 2017), community organizers (Friedman 2005), and in the case of the examples provided later in this chapter, educators (Holzman 1997, 2016; Lobman 2011).

One of the discoveries made in the course of creating environments which prioritize ensemble building is that these environments support and produce overall human development. For decades development was understood as a series of progressively higher stages that individual children pass through on their way to maturity. However more recently, social therapeutics, and many others, have been influenced by the work of the Soviet psychologist Lev Vygotsky (1978). One of Vygotsky's greatest contributions was to demonstrate that development is not the unfolding of a series of maturational stages but an activity that human beings create

socially and culturally. "Young children and their caretakers create what Vygotsky calls Zones of Proximal Development (ZPDs), developmental environments that support children to do what is beyond them, to perform who they are becoming (even as they are who they are)" (Holzman 2008, p. 196).

A wonderful example of development is the process by which a baby becomes a speaker. Babies are supported to perform as speakers long before they can speak. The baby says, "Ba, goo da mee" and their big sister or grandmother says, "Yes that *is* a very big doggy!" They do not wait for the baby to be ready to make sense, nor do we correct them. They relate to the baby as both who they are (a non-speaker) and who they are becoming (a speaker) and in the course of that the baby learns to speak. In theatrical language, the whole family, including the baby, creates a stage where the baby can perform as a speaker before the baby knows how. And this happens with thousands of other activities before a child ever goes to school. We (together with the child) create stages where children can perform as speakers, walkers, tricycle riders, dinner eaters, and artists long before they know how to do these things.

Whereas traditional understandings locate development as a prerequisite for learning, Vygotsky saw learning as being able to push development forward, even as development also creates the conditions for new learning to occur. Vygotsky called the kind of learning that supports development, "the only learning worthy of the name" (1978, p. 102). However, once we leave early childhood, learning and development are often separated. In most formal learning environments, the focus is on the individual acquisition of knowledge and skills. Students are expected to demonstrate what they know, rather than supported to do what they do not know how to do (Holzman 1997). Newman and Holzman's social therapeutics (1993) utilizes ensemble building and performance to help bring learning and development back into a mutually supportive relationship by having teachers and learners create stages where everyone can perform as who they are and who they are becoming.

13.5   Improv Comedy: A Gym for Ensemble Builders

As part of learning social therapeutics, educators are introduced to improv comedy as a way to shift their and their students' focus to creating ensembles. Improv, as distinct from standup comedy, is a performance activity where most if not all of what is performed is created collectively in the moment. As the current form of comedic improv developed, a set of guidelines emerged that makes it possible to create collectively without prior planning or scripting (Johnstone 1987; Salinsky and Frances-White 2011). I often think of these guidelines as the shared culture that is necessary for people to stop worrying about their *selves* and focus on the creation of the ensemble.

The first rule of improv is to look for and accept offers. Offers are defined as "any idea brought to the stage (line of dialogue, gesture, mime, change of expression)" (Salinsky and Frances-White 2011, pp. 56–57) that is used to create the scene. The

job of improvisers is to make and accept offers. For example, two improvisers step out onto the stage. They have no script. One of them says, "It sure is hot here on the moon!" Performer one has made an offer—she has established they are on the moon. Her fellow performer responds, "Yeah, let's walk over to the dark side and cool off." Performer two has accepted the offer (that they are on the moon and it's hot) and has added to it by making her own offer.

One way to understand accepting offers is as a cultural activity—rather than competing for the spotlight by questioning, critiquing or analyzing what a fellow performer has said or done, the culture of improv is to embrace it and build with it. The second, and probably the most well-known improv term is "*yes, and.*" "Yes, and" is an exercise, a key activity in any improv scene, and, for some improvisers, a way of life (Salit 2016). What the phrase conveys is a commitment to accepting offers and adding onto them with additional offers; it stays any impulse to take the conversation/scene in a new direction (Salinsky and Frances-White 2011).

The third improv guideline, and one that is critical to the thesis of this chapter, is that it is the job of every improv performer to make the ensemble look good. This rule counters the culture of other forms of comedy where what is most important is to make people laugh. In improv being individually funny or clever is secondary to supporting the ensemble (Halpern et al. 1994; Johnstone 1987).

In the remainder of this chapter I am going to share three examples of ensemble-focused teaching. All the educators have been trained in and practice the social therapeutic approach, including developing a familiarity with the practice of improv comedy and the tools improvisers use to work together as an ensemble. The first story is from my own teaching, the second comes from a teacher who I trained in social therapeutics and improvisation, and the final vignette comes out of a research study I conducted of an outside of school youth program.

13.6 A Chess Playing Ensemble

Immediately after college I taught preschool in an affluent urban neighborhood for twelve years. After I had been teaching for several years I had an opportunity to work with Robert, a student who was gifted in many ways. At three and a half he had a well-developed understanding of numbers (he could add, subtract and do simple multiplication in his head), and he could play chess. While he was not what you might call a prodigy, he knew how to play the game with some level of sophistication. He knew how the pieces moved, could play a complete game, and had some understanding of strategy and how to see the whole board. Not surprisingly, he was the only child in the class who could play chess, and while I knew how the different pieces moved, he was a much better player than I.

Robert's talents raised an interesting question for me. I was trained to look at strengths individually—as special in each child, without much to do with the rest of the class or the learning environment as a whole. In the past when I taught children like Robert, who were unusually good at something, I would provide them with

extra activities that would challenge them to go further in their area of strength or I would admire their strength as an isolated skill and work to teach them the things that they were less good at.

One of the most important changes that my improv training brought to my teaching was that I began to see the class as an ensemble rather than as a collection of individuals. While most preschool teachers are concerned with helping children learn to work and play together, I had come to understand that task in a new way. I began looking for offers the children were making that could be useful to the development of the class. In that context, Robert's chess playing was an opportunity. I wanted to see if we could use his skills to support the development of the class as a whole, creating an environment for everyone to develop, not just as chess players, but as learners and teachers. I was less interested in whether the children learned chess, and more interested in having the children together create an environment where Robert could teach us to play chess. The focus was not on the end product, but on the relationship between playing chess and playing together at being learners of chess.

Over the course of several conversations I asked Robert if he would help the class learn chess and he agreed. His mother sent in a beginner's set where each of the pieces was marked, along with a diagram that showed how the piece moved. Robert set up a chess center at the "table toy" table in the middle of the room, and children and teachers who wanted to learn would ask Robert to set aside time to teach them.

As in any ensemble, the members of the class brought different skills or experiences to learning chess. Some children were not ready to learn anything resembling the traditional game. Robert and these children had to grapple with their differences. Within a few weeks, a small group of children had created what they called Superhero Chess where the pieces could "morph" into superheroes at any time. While Robert found the unpredictability disconcerting, he went along with it. Over time he actually became a fan of this kind of play. His mother even reported that he had taught his grandfather (his original chess teacher) superhero chess and they now both enjoyed it as an alternative to the "more serious" game. Other people, including me, were eager to learn the more standard game. It turned out that Robert was a very patient teacher, and by the end of the year I could occasionally beat him.

The children (including Robert) and I collectively created an environment where he could teach us to play chess. In other words, we had to create the environment together, and it was a social, improvised play zone, not a tool for learning a particular skill. The experience of working with Robert and his classmates helped me recognize a paradox that exists in early childhood education. Preschool is where children learn to be in a group (other than their family), *and* where they learn that the most important thing is individual success. Creating the chess-playing/teaching environment with Robert and the other children, I began to challenge this dichotomy by putting the focus on the creation of relationships and ensemble as inseparable from learning.

If we relate to learning as an individuated commodity, then children learn to hold on to what they learn and keep it for themselves. However, if we relate to learning as an ensemble process by which groups of people create the environment for

learning to occur, then skills and knowledge get transformed into materials for the group to use and children learn to be builders and creators. "Education is not, then, a process of *producing* effective individuals; it is one of fostering processes that indefinitely extend the potentials of relationship" (Gergen 2009, p. 243).

13.7 Individual Competition vs. Ensemble Imitation

For several years, I led a program called the Developing Teachers Fellowship Program which trained public school teachers in social therapeutics. Maria, one of the Fellows, taught 6th Grade English and Language Arts at a charter school in a Black and Latino working class community. She wanted her students to develop their ability to have discussions where they did not just answer her questions but listened and responded to each other. But they had never been exposed to that kind of conversation in school and they struggled to understand what she wanted. She taught them the improv "yes, and" exercise*,* and while they loved to play it as a game, it did not appear to have an impact on how they talked to each other during class discussions. They continued to direct their responses to her.

At the same time, Maria was also teaching a graduate level course at an elite university. While her adult students were more able to engage in dialogue than her middle schoolers, Maria still felt there was room for development. Her graduate students often competed for who could say the smartest thing. Their responses to each other took the form of one-upmanship where the person who could name the most famous theorists "won." Students who were intimidated by this type of conversation would remain quiet even if they had something to contribute. Maria was eager to see if she could help them have a more collaborative conversation.

Working closely with her cohort of Developing Teacher Fellows she decided to see if the two groups of students could help each other. She shared with her graduate students that she was struggling to help her younger students engage in conversations where they listened actively, asked questions, and built on each other's responses. She invited the graduate students to help her by creating a video of a "quintessential graduate school discussion." They agreed. In collectively creating the video her graduate students went beyond their usual level of conversation. They performed as supportive conversationalists who asked probing questions and built on each other's responses. Every person in the class participated in the dialogue. By switching from *having* a dialogue, to *performing* a dialogue Maria and her students were able to break through some of the competitiveness and create a more inclusive environment. Maria reported that these changes continued after the video was completed.

Maria showed the videotape to her 6th graders. She invited them to imitate what they saw to create a performance of a graduate level seminar. Over several class sessions, the children studied the video, they analyzed what the adults were doing, and then worked to create their own performance of this style of conversation with the content that was appropriate to their studies.

> My middle school students had particularly noticed that the adults used the phrase, "Following up on what so-and-so just said…" and they began starting their sentences with that phrase. Just that little thing, that little change in phrase, meant that they were talking to each other and not to just me. And they were good at it, sometimes better than I was. Once they started saying that they were responding to the other person they actually started listening so that they could have something to say! (Maria, personal communication, April 14, 2006)

While Maria's two sets of students never met each other in person they were able to create a virtual learning environment which enabled both groups to create new performances of classroom dialogue.

Maria's story highlights the use of imitation, one of the most valuable tools human beings have at our disposal. When we are very young, imitation is encouraged. It brings parents no end of joy and amusement when their toddlers try to act like their older siblings or adults. Much of the play of preschoolers involves creatively imitating the world around them. As Vygotsky pointed out, "Development based on collaboration and imitation is the source of all specifically human characteristics of consciousness that develop in a child" (Vygotsky 1987, p. 210). However, school-age and university students are not supposed to imitate. At best imitating is seen as unoriginal, but it is often considered cheating.

Newman and Holzman (1993; Holzman 2010) put imitation at the heart of all learning. Creative imitation makes it possible to do what we do not already know how to do. And doing what we do not know how to do is critical for the kind of learning Vygotsky called "worthy of the name." Following Vygotsky, Holzman points to the kind of creative imitation we all did when we were first learning to speak:

> I see creative imitation as a type of performance. When they are playing with language very young children are simultaneously performing, becoming themselves. In the theatrical sense of the word, performing is a way of taking "who we are" and creating something new…by incorporating "the other." (Holzman 2010, pp. 37–38)

One of the jobs of an ensemble teacher is to create environments where students are not isolated or discouraged from imitating more developed forms of activity.

13.8   Going Beyond Support: Taking Collective Responsibility

My final example comes from a youth and community development program of the All Stars Project. The All Stars serves over 53,000 people annually in six cities. This program has been a laboratory for researching development and performance, and this work has helped create the social therapeutic methodology. I, along with others, have written elsewhere on the history and methodology of the All Stars (Gildin 2014; Holzman 2016; Lobman 2017), so for the current chapter I will share one story from one of the All Stars' core programs.

The Development School for Youth (DSY) is a performance program that partners with a corporation to provide training in the "performance of business." Over the course of fourteen weeks the predominantly Black and Latino youth travel out of their neighborhoods into the heart of Manhattan and attend a series of workshops led by predominantly White affluent business people in collaboration with experts in performance. In these workshops the young people learn the performance of everything from resume writing to the workings of the stock market.

A lot is made in the field of youth development about "tenaciousness" and "grit" and "resiliency" (Duckworth 2016; Duckworth et al. 2007; Tough 2013). It is part of an overall move towards a more positive psychology that focuses on what personality traits young people need to be successful. However, my concern with those concepts is that they still betray an individual bias. Grit and resilience are characteristics of individuals, but the question the All Stars asks is: What is the collective performance that is needed for young people living in poverty, many of whom are not tenacious or gritty, to develop?

This story takes place during the last of the fourteen workshops. Several people in the class were struggling with talking and asking questions during the workshops. Kirsten, the director of the program came into the group and said to the ensemble, "I want everyone in here to be talking and building the conversation. What are *we* going to do together today so that everyone is going to be a part of this final workshop?" She did not address her questions to anyone in particular—she asked the ensemble. One girl stood up and said, "I'm someone who needs to talk today, and I need the group's help."

The young people's first response was to give encouragement— "you can do it" and "we support you." Then a young man stood up and said, "Look, everybody, we're creating a play here and we have to make this a scene where everyone has a speaking part." There was silence for a few moments and then someone volunteered, "I've got four questions to ask so why don't I ask my question first and then you can ask one of my other questions?" This offer jumpstarted the group's creativity. Collectively they came up with a "script" for the workshop. Once the conversation began, the primary role Kirsten played was to go to the door to let the head of marketing for the telecommunications firm and her staff into the room and to say, "OK, we are ready. Scene up."

During the workshop, everyone in the group asked a question or commented at least twice. But how this happened I find most interesting. They utilized their script as a starting point, but mostly they improvised the scene. Everyone in the group took responsibility for everyone's performance—if someone had not yet asked a question, someone else unobtrusively passed them a question. One of the original "non-talkers" said later that, fearing it might be an inappropriate time for her comment, she leaned over and quietly asked another group member her opinion. A painfully shy girl, she not only bravely ventured a question, but went on to ask a follow-up question. When I spoke to Kirsten later, she said the business leaders had told her afterwards that this conversation with students was one of the most challenging and high level discussions they had ever had—with anyone. (Kirsten, personal communication, September 13, 2013).

"In a community of learners people assist each other in becoming responsible and solving problems in ways that fit their own needs while coordinating with those of others and with group functioning" (Rogoff 1994, p. 11). At the beginning of the conversation with Kirsten, the DSY youth were actively trying to support the shy children by providing them with encouragement and support—"we believe in you." This level of mutual support is different than what happens in many classrooms where students often compete for who can get the right answer. As Holzman says, "Putting on a play or a concert and playing basketball as a team requires the members to create a collective form of working together. Unfortunately doing well in school does not" (2010, p. 36).

There are many different ways to organize "a collective form of working together." With the leadership provided by one of the young people midway through the pre-workshop conversation, the DSY ensemble moved from helping individuals to supporting the group to take responsibility for the group's success. An essay Vygotsky wrote on how children with disabilities operate in groups of mixed abilities is helpful in understanding the relationship between creating the ensemble and individual development.

> Each of the children who made up the collective acquired a new quality and specialness by assimilating himself into some kind of larger entity…in the process of collective activity and cooperation, he is lifted to a higher level. It's not that there was something there before—it's that in the process of building the group, new forms of life (personality) are revealed. (Vygotsky 2004, p. 211)

With Kirsten's support the young people in the DSY took collective responsibility for the ensemble, and in the course of doing so many of the young people were able to perform in new ways.

13.9   Conclusion

"We are moving into a moment when we leave behind the myth that individuals succeed or fail because of their own talents" (Gergen 2009, p. 241). Society needs people who embrace diversity, interdependence, and are willing, in improv terms, to build with offers and say "yes, and." Drama education is an effective training ground for this kind of transformation as it gives students an opportunity to work together for the common good. In this chapter I advocate for expanding the reach of ensemble building beyond the drama classroom.

The three learning environments described in this chapter were very different from each other. The first was a preschool classroom serving affluent families, the second took place in a middle school in a Black and Latino working class community and in a graduate school at an elite university, and the final example was an outside of school program for older teens living in poverty. The content to be learned was also varied. If we look across the three examples one commonality emerges. The activity of creating the ensemble was front and center. Whether it was learning

to play chess, having an intellectual discussion, or finding out about the business world, the children and youth were encouraged to see themselves as members and creators of the ensemble. They created the ensemble by giving what they had to give on behalf of the group's learning.

I see the focus on the ensemble as an issue of equity. The young people were learning to create environments that were inclusive of everyone. This type of inclusion did not require the educators to draw attention to the participants' differences. The participants who did not know the rules of chess or were too shy to speak up were just as important to the ensemble building activity as those who did. It was everyone's responsibility, not just the facilitator's, to find ways to include people at all levels of skill and development. The guidelines and rules of improv provided a framework that made including everyone possible. By actively accepting offers, and teaching the participants to say, "yes, and," inclusion became the norm. I want to end by coming back to Vygotsky. The educators in this chapter embrace the group as an activity of continuous creation where everyone involved can develop as builders and creators of environments for learning that, in Vygotsky's words, "is worthy of the name."

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Part V
Crossing Disciplinary Boundaries

Chapter 14
Enhancing Creativity with Neurofeedback in the Performing Arts: Actors, Musicians, Dancers

John H. Gruzelier

Abstract Applications of EEG-neurofeedback to the performing arts with actors are reviewed and compared with relevant studies of musicians and dancers. Neurofeedback involves learning to self-regulate targeted brain rhythms, rhythms that here have putative relevance to artistic performance. Actors received sensory-motor rhythm training, theorised to favour authenticity in acting, with a training context immersing them in an onstage theatre auditorium through either 2D or 3D representation. The more immersive format led to superior acting according to experts, especially on creativity subscales. Furthermore the actors' experience of flow in performance was superior following neurofeedback, with affirmative associations between subjective flow and objective expert ratings. A slow wave protocol which involves training-up the theta rhythm over alpha with eyes closed before entering sleep (see Sect. 14.1) showed consistent benefits for elite music performance, especially musicality/creativity and extending to communication and technique. This benefit was also found with novice performers, to include school children, where the sensory-motor rhythm protocol also enhanced performance, perhaps facilitating lower-lever processes such as attention, memory and psycho-motor skill. With competitive ballroom and contemporary dancers the alpha/theta protocol was compared with heart rate coherence biofeedback; both interventions were of value. The evidence adds to the rapidly accumulating validation of neurofeedback, while performing arts studies offer an opportunity for real life validity in creativity research for both creative process and product.

14.1 Introduction

The goal of this chapter is to present scientific evidence that neuroscience provides successful enhancement of the diverse abilities that go towards live stage performance especially in actors, and also in musicians and dancers, their creative ability

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in particular. Performance enhancement was achieved through the performer's learned self-regulation of their brainwaves through a training procedure termed neurofeedback. We assessed performance outcome after neurofeedback with objective ratings of filmed performances by experts who did not know whether the film clip they were rating was before or after training or whether the performer had received the training or control procedure (see Sect. 14.2). Assessment also included the performer's subjective reports immediately after performance. By assessing actual creative performance this scientific methodology exemplifies a much sought for ecological, i.e., real life, validity in creativity research, regarding both creative process and product. Typically creativity is limited to contrived laboratory problemsolving tasks.

EEG-neurofeedback is the type of biofeedback where through immediate feedback of a representation of the participant's brain waves participants learn to self-regulate them. Brain waves are recorded by the electroencephalogram (EEG) through sensors placed on the head. This is a well-established noninvasive methodology, and all hospitals have had EEG departments since the 1950s. The EEG records a spectrum of rhythms that for simplification can be related to an arousal-level frequency-band schema: delta waves (0–4 Hz) primarily found in deep sleep, theta (4–8 Hz) associated with drowsiness and early sleep stages, alpha (8–12 Hz) characteristic of a relaxed waking state and augmented by eye closure, sensory-motor rhythm (12–14 Hz) associated with relaxed preparedness, while beta (15–30 Hz) and gamma (> 30 Hz) waves are associated with active cortical processing in the alert brain.

The intricate behavioural significance of brain rhythms beyond this arousal schema is currently a central pursuit of cognitive neuroscience. This adds to the creation of new neurofeedback protocols designed on theoretical grounds so as to boost the desired behavioural outcome (Gruzelier 2014a, c). To give an example ADHD is the most widespread clinical application of EEG-neurofeedback. This disorder involves hyperactivity and failures of sustained and focused attention. In order to moderate hyperactivity and produce more controlled behavior the SMR band, which will be referred to in our acting study, is trained up. Whereas in order to facilitate sustained attention in ADHD the low beta band which underpins active thinking is trained up. Now optimising cognition, emotion and performance in arts and sports in healthy participants has become a vibrant field of research (Gruzelier 2014a, b, c). At the same time neurofeedback is a nascent field with as many questions as answers.[1]

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[1] The neurofeedback field began half a century ago, and in this millennium has been extended to other central nervous system modalities, notably functional magnetic resonance imaging (fMRI). Whereas biofeedback of the peripheral nervous system involving muscle tension, systolic blood pressure, heart rate, skin temperature, etc. entered Behavioural Medicine, in the early days EEG knowledge was preliminary and practitioner claims were overstated so that it fell out of fashion in academia. Following new evidence of validation, rehabilitation has occurred, though with an international perspective. A majority of grass roots practitioners, steadfast and with valuable expertise, have resided in North America where the academic stigma surrounding EEG-neurofeedback still lingers, though interestingly not with respect to fMRI-neurofeedback. The majority of EEG valida-

What happens during a training session? Neurofeedback is done either with eyes open or closed. Through eyes-open training the faster brain rhythms are targeted. Here the participant watches a computer screen which gives reinforcing feedback. The feedback might be a bar diagram going up or down as the targeted rhythm goes up or down, or say a lotus flower opening or closing. In contrast eyes-closed procedures target slower brain rhythms. Here the reinforcing feedback is given through pleasing sounds such as waves breaking gently on the shore and occurring when the desired rhythm increases. We explain to the participant what we want them to see or hear, such as the lotus opening rather than closing, or the sound of waves breaking. Participants should adjust their mental state to allow it to happen. In other words the targeted brain rhythm is adjusted through a feedback loop. Eventually there is a sense of mastery as the participant learns to self-regulate the brain rhythm.[2]

The author's contribution to the performing arts began with an invitation by the Royal College of Music, London, to explore the value of neurofeedback for elite music performance. The outcome of this research was of professional and pedagogic significance and captured the attention of the media. This study led to further applications to music and dance as well as to acting.[3]

14.1.1 Measurement of Arts Performance

Science proceeds by measurement. This necessity raises the question of particular relevance to a collection on drama education. For the question arises: 'Can acting performance be measured?' Measurement must be fundamental to any scientific enterprise. When I was first embarking on this scientific quest in a leading London dramatic art academy thespians greeted the question with an emphatic 'no.' Evaluation of student ability was simply against the ethos of that establishment: 'In fact prizes are no longer awarded.' Perhaps this ethos was in keeping with a widespread 'liberal left' contemporary educational belief that all students are winners.

As our scientific investigation of acting performance could not proceed on this basis we made recourse initially to measurements in our original neurofeedback studies of musicians that are outlined below (Egner and Gruzelier 2003). In retrospect we were fortunate that it was the music domain of the performing arts that provided our formative experience. We could capitalise on assessment procedures officially recognised for examination purposes by the Associated Boards of the Royal Schools of Music (Harvey 1994). Aside from an overall quality mark there were three main categories: musicality/creativity, technical competence, and

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tion research in both clinical and nonclinical optimal performance fields comes from Europe, and the Far and Middle East.

[2] For a more detailed introduction written for a performing arts readership see Gruzelier and Egner (2004).

[3] For technical treatments of these performing arts studies see a review (Gruzelier 2014b) and the empirical reports cited therein and in this chapter.

communication/presentation. These scales were adapted further (Thompson and Williamon 2003) with ten sub-scales defined after consultation with the faculty. The musicality/creativity subscales consisted of interpretative imagination, expressive range and stylistic accuracy. The technique subscales were technical security, rhythmic accuracy, and tonal quality and spectrum. The communication/presentation subscales were deportment, emotional commitment and conviction, and the ability to cope with situational stress. Each was marked on a 1–10 scale mapping onto the percentage scales used for the formal assessment of grades with the conservatoire examination procedures.

I continue with the evaluation procedures for they provided the blueprint for all our performing arts studies including acting. Video recordings were made of the musicians. They played before a small audience with their first study instrument. There were just two brief contrasting pieces of the student's choice from their current repertoire. The video recordings were edited into a random order for the purpose of blinding raters, both blinding for what research training procedures the student was assigned to, and blinding for whether a particular film clip represented performance before or after the training intervention (see Sect. 14.4). Blinding is a scientific procedure aimed at safeguarding any bias due to expectancies. For example, if it was known which excerpt represented the student playing prior to neurofeedback, and which represented their performance after neurofeedback, the judge might rate the after-training performance superior because of the expectancy that training would make the player better.

There were two evaluators external to the College in the first exploratory study and three in the second study. How well the judgments of the two experts corresponded is calculated with a correlation statistic. This ranges between 1.0, representing perfect correspondence, through zero which represents no correspondence, to minus 1.0 which represents the exact opposite so that the student rated best by one judge is rated the worst by the other judge. The likelihood of the obtained correlation occurring by chance is also indicated by a 'p' probability value. A 'p' value of .05 means that there is a 5% probability that the result could have occurred by chance, a 'p' value of .01 represents one chance in a hundred and so on. Our average inter-rater reliability across all evaluation scales was $r = 0.52$ ($p < .001$), indicating that it was extremely unlikely that the result could have occurred by chance. The correlation was comparable to prior publications of music performance assessment (e.g., $r = 0.53$, Thompson et al. 1998; $r = 0.49$, Wapnick and Ekholm 1997). And as will be seen it was of particular credence for scientific purposes that the improvements in rated performance were found to correlate significantly with the individual differences between students in neurofeedback learning. This correlation would also attest to how reliable or repeatable the ratings were. The scales were modified further in subsequent music studies, which included singers as well as instrumentalists and later on children.

I followed similar blind evaluation procedures in my research on acting. In collaboration with the leading dramaturge from the Royal Academy of Dramatic Art, London, we designed an Acting Performance Scale. This evaluation tool consisted of eleven 10-point scales which covered performance overall including voice,

movement, creativity and communication. There were eleven scales as follows: performance overall, vocal transformation, vocal expression, movement fluency, movement inhabitation, imaginative expression, imaginative conviction, imaginative characterisation, seamlessly engaged, at-one with performance and well-rounded performance.

But what did the actors feel as a result of neurofeedback? Did they feel any improvement? The actor's subjective experience was explored through self-ratings with a flow scale. These responses were obtained immediately after performing (Jackson and Eklund 2004). Flow is a psychological construct that has entered popular discourse. The recognition and initial development of flow is attributed in 1990 to Csíkszentmihályi, a noted Hungarian refugee, which he subsequently extended to creativity (Csíkszentmihályi 1996). He is considered a pioneer of the currently prominent field of 'Positive Psychology.' Flow refers to focusing on that optimal experience described as entering the 'zone' or 'being in the groove.' There is total absorption in performing; the feeling that everything comes together; mastery with the sense of being in control. The state is intrinsically motivating and does not rely on any product or extrinsic reward. It requires an optimal balance between skill, mastery and challenge and with immediate feedback about accomplishment. It involves intense concentration without self-consciousness. There is a feeling of satisfaction, and often the experience of a 'high.' The Flow State Scales measure nine dimensions: merging of action/awareness, clear goals, unambiguous feedback, concentration on the task at hand, sense of control, loss of self-consciousness, transformation of time, autotelic experience and challenge-skill balance.

As will be seen, the experience of flow in performance was superior in actors trained with neurofeedback than in untrained controls. Given that the dramatic art is the main thrust of this collection, the neurofeedback applications to acting will be outlined before the originating music research. Furthermore the acting study had novel innovations of methodological and theoretical importance for both neurofeedback and creativity research.

14.2 Enhancing Creativity in Actors

Of the various neurofeedback protocols targeting different frequency bands within the EEG spectrum of rhythms, the Sensory Motor Rhythm (SMR, 12–14 Hz) was the one I selected for the acting study. The SMR wave band facilitates an alert but quiescent state which conceivably may produce a more considered and modulated acting performance, and the possible underpinning of authenticity in performance, or what is called in the acting conservatoire world—'listening.' Adequate listening is fundamental to believability in the role, and is one of the hardest challenges the actor faces. Instead of impulsively getting lines out, from what is likely to be an over learned text, authenticity requires acting as if you are speaking the text for the first time. Before you reply, you must give the appropriate time necessary to show that you have psychologically digested what is delivered to you as if it is new. All in all,

by virtue of a likely increase in mental capacity, or what is called working memory, i.e., the ability to hold information in mind, SMR training may facilitate a more controlled, modulated acting performance. This in turn may provide more mental space for an imaginative engagement with the role. For clinical and optimal performance SMR research applications see (Arns et al. 2009, 2014; Ros et al. 2009; Gruzelier 2014a, b, c).

We incorporated two methodological innovations for neurofeedback research into the SMR protocol with actors. Both were designed to enhance associations with actual performance on stage. This approach was new because typically the training context of neurofeedback bears no relation to the real world in which the putative behavioural improvement will be manifested. For example, the computer screen giving the participant feedback may consist of a bar diagram going up or down in relation to the changes in the brain rhythm, or the changes may be represented by a computer game-type scenario. If the feedback is auditory it may take the form of beautiful sounds. For one of our training groups an innovation involved rendering an image of a representative theatre auditorium, as seen by the actor from the stage, on the laptop training screen (2D). Then for another 3D group, in order to vary the degree of this immersion in the acting space, the participant was placed in a room where the same auditorium image as seen on the laptop was seen through 3D glasses in three dimensions on the walls surrounding the actor. In other words, it was as if the actor was standing in the theatre auditorium.

We made another innovation to facilitate an association between neurofeedback and real-world connections. This modification was directed at reinforcement cues signifying the actor's success in learning to control the targeted brain rhythms. These cues were chosen to represent the actor's control of aspects of the performing space: reducing intrusive audience noise and moderating the auditorium lighting—each actor could choose whether they preferred the auditorium being lighter or darker when on stage. We hypothesised that the ensuing mastery of control, together with the real life validity of the training context, would aid real world transfer, and thereby enhance on-stage acting.

The actors were the fifteen members of a class of visiting drama sophomores from Illinois on a semester placement in London. Over six weeks they received either between 7–10 sessions of neurofeedback or acted as controls. They were randomised to the two training groups: 2D ($N = 6$) or 3D ($N = 5$). Acting performances were rated from Hamlet excerpts performed on the stage of Shakespeare's Globe theatre and from filmed Globe studio monologues. Three experts from different acting academies in London served as raters. They viewed the filmed excerpts blind to order and group so as to avoid rating bias (as explained in Sect. 14.2.) and rated each performance on the 10-point Acting Performance Scale.

The 'real-life' innovations were successful. The more auditorium-immersive VR procedure had greater impact on acting than the conventional 2D computer screen, even though the same theatre auditorium was depicted (Gruzelier et al. 2010; Gruzelier 2014b). Confirming our research with musicians (Sects. 14.4, 14.6), we were delighted to see that of the various acting performance domains the greatest impact was specific to the ratings of *creativity* in acting. This enhancement was
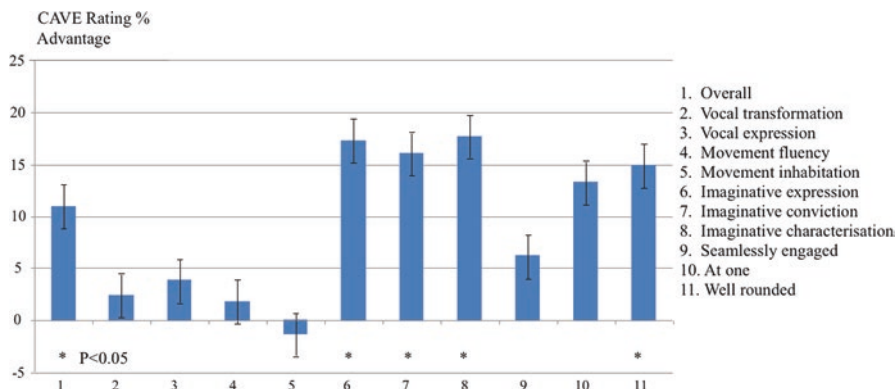
Fig. 14.1 Percent improvement in acting ratings showing advantage of 3D upward versus 2D downward histograms (Gruzelier et al. 2010)

found in all the three creativity subscales: imaginative expression, conviction and characterisation. These advantages carried over to the global ratings of overall performance and to well-rounded performance. Results are shown in Fig. 14.1, where it can be seen that the percent improvement favoured the 3D group.

These preferential effects of the more immersive 3D training context over the 2D laptop was paralleled by a slight advantage for the 3D context in the speed with which self-control of the EEG was learned. This finding was depicted by the rate at which the learned elevation of the rhythm increased (termed an EEG learning curve, and as colloquially spoken 'that was a steep learning curve!'). This result was assessed by a self-report introspection scale item: "At what stage did you recognise the mental state we were seeking in you?"

In terms of the sense of flow in performance, those actors who had received neurofeedback, whether the training medium was 2D or 3D, did experience higher flow in performance than the controls (Fig. 14.2).

Then, as a considerable scientific bonus, the degree of the *subjective* sense of the flow-state correlated comprehensively with the experts' *objective* ratings of acting improvement. Furthermore this association held true for every domain of acting performance. As can be seen in Table 14.1, the correlations involved all the eleven categories of acting and were found with five of the flow scales: sense of control, loss of self-consciousness, merging of action/awareness, challenge/skill balance, and autotelic experience.

In conclusion, this systematic measurement of the performer's subject state during performance following neurofeedback training was the first formal demonstration of subjective advancement. From a scientific point of view it was important: Now we could show that there was a positive association between how the actor felt as a result of neurofeedback and what the experts observed. Previous advantages in the performing arts rested with expert evaluation only. Accordingly the advantages accruing from neurofeedback training were given added validation—the evidence was made more solid.
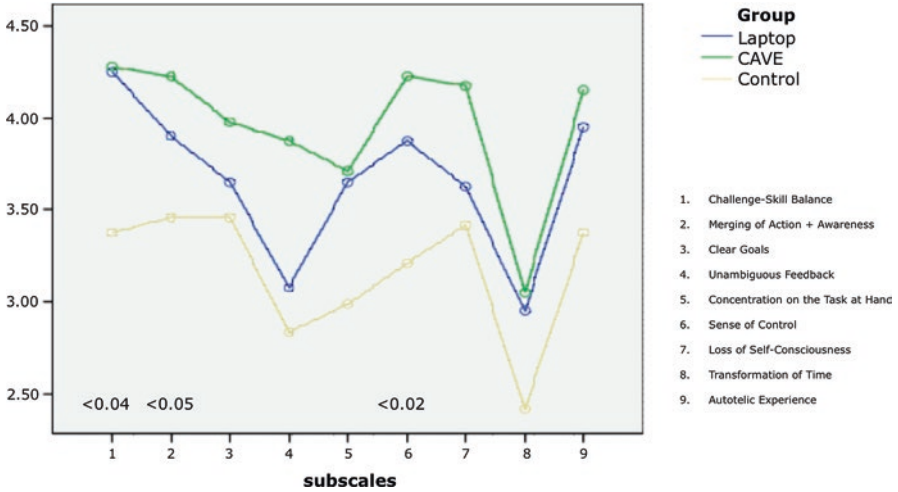
Fig. 14.2 Actors' flow state self-ratings averaged for *Hamlet* excerpts and monologues indicating superior flow following neurofeedback when compared with the no-training control group (Gruzelier et al. 2010)

Table 14.1 Correlations and *p* values between the actors' sense of flow post-training and experts' acting performance ratings

Flow scale	Acting rating	*r*	*p*
Sense of control	Being-at-one with performance	0.62	0.3
	Vocal expression	0.52	0.07
	Well-rounded performance	0.53	0.07
	% overall improvement	0.58	0.055
Loss of self-consciousness	Creativity scales factor	0.69	0.03
	Conviction	0.66	0.00
	Movement fluency/inhabitation	0.64	0.05
	Mean of all acting ratings	0.62	0.06
Merging action & awareness	Being-at-one	0.56	0.06
	Vocal scales % improvement	0.60	0.04
	Vocal expression	0.55	0.06
	Imaginative expression	0.53	0.08
Challenge/skill balance	Being-at-one	0.56	0.06
	Well-rounded	0.52	0.08
	Vocal scales	0.53	0.07
Autotelic experience/ enjoyment	Vocal scales	0.57	0.05

Now, turning to the 'real-world' innovations, the results had added importance. By linking the SMR neurofeedback learning context with theatrical space images—the real world context—not only were gains seen in performance overall, but there was a nuanced result. The improvements were seen best in the experts' judgments of *creativity* in acting—an exact correspondence with the musicians' performance.

14.3   Theatre in Relation to the Performing Arts

The neurofeedback study with actors was in fact the last of our series in the performing arts. What now follows are (1) the foundation studies with elite musicians, followed by (2) a study which contrasted novice singing with advanced instrumental ability in the same students, both studies carried out in music conservatoires, and (3) studies with competitive and contemporary dancers.

Though these performing arts studies were conducted outside of acting schools they are germane to potential neurofeedback applications to acting because in European acting academies song and dance take up a considerable part of the curriculum. Outside the conservatories, schools are combining music and drama or music and dance. Actors need to move and sing, singers and dancers need to act.

Putting aside these pedagogical considerations and turning to scientific ones, we have been fortunate in completing six controlled studies with the performing arts, in addition to the acting study discussed above. This research with dancers and musicians not only indicates potential benefits for actors too but provides evidence of replication for our findings, legitimizing our work's scientific value.

In a broader cultural context they sit within a contemporary zeitgeist, or spirit of the times, of an active cross fertilization between most spheres of cultural activity. In the UK there has been a financially based advocacy of bringing together the arts and science around new technology, an initiative from which my neurofeedback enterprise benefitted directly.

The main features of these studies for acting are as follows:

1. Slow-wave theta and alpha enhancement have robust and professionally significant impacts on music performance, whether performance is elite or novice. The slow-wave enhancement has a particularly favourable impact on creativity amongst the different domains of music performance, which include musicality/creativity, communication/presentation, and technical ability. Impact extends to musical improvisation. Aside from musical performance in theatrical contexts the creativity and communication domains extend to all spheres of the performing arts.

2. SMR training, the procedure described above with actors, conducted with musicians, but without the immersive real-life context training innovation, is especially relevant for the various domains of novice musical performance in adults as well as in children.

3. Heart rate variability (HRV) coherence training was compared with slow-wave training in dancers. Both enhanced dance performance. HRV is a mind-body cardiovascular adjustment procedure, which is of special relevance to movement in performing, just as relevant to actors as dancers.

14.4 Enhancing Elite Music Performance

Sports psychology inspired the first two of our foundational studies of neurofeedback in the performing arts. Our research programme branded 'Zoning In' was based on the premise that elite performance in music shared psychological commonalities with sport, perhaps best understood in terms of the flow state (Sect. 14.2.) Musicians enter the 'zone' just as sports people do, in addition to sharing a dedication to practice. We set out to compare three different sports approaches that might help elite musicians. Neurofeedback was one such approach, and as this investigation was exploratory we compared in the same participants a slow-wave neurofeedback protocol with training up the SMR band, the one we went on to investigate in actors, and a faster wave beta band – three protocols in all. Another intervention from sports psychology was what is called 'mental skills training' where the trainer discusses the musician's performance with the aim of strengthening attitudes, identifying problems, providing relaxation exercises if required, and instilling confidence. The third was a purely physiological approach, namely aerobic fitness training which was done in a local Kensington gymnasium. There were three groups. One group ($N = 12$) experienced all three interventions, another only the neurofeedback protocols ($N = 10$), while another group were controls ($\underline{N} = 14$). As the first investigation was exploratory only the main results will be outlined.

According to the ratings of the two experts (Sect. 14.1.1) music performance improvements occurred only in those musicians who had received neurofeedback training. The improvements were found in all three music performance domains: musicality/creativity, communication/presentation and technical competence, see Fig. 14.3.

Before understanding these remarkable results in favour of neurofeedback, gains in performance that did not accompany mental skills training and aerobic fitness training, we should describe the neurofeedback training. Because this was an exploratory study three neurofeedback protocols were contrasted within individuals. One was SMR (12–14 Hz) training, as in the actor study but without the real-world laptop screen. A second was low beta activity (beta1, 15–18 Hz), which is a requisite of active thinking in order to facilitate sustained attention in performance. The third was slow-wave alpha/theta (A/T) training with eyes closed and reinforced by beautiful sounds. Here the aim was to slip into hypnogogia without progressing beyond stage 1 sleep. This state, in addition to deep relaxation, has been associated with creativity and psychological integration, as elaborated in Sect. 14.5. The SMR and beta1 feedback protocols were counterbalanced within ten twice-weekly sessions of over five weeks. A/T (8–12 Hz)/(3–7 Hz) training followed in ten 15-min sessions within a five week period.[4]

The question arises: which of the three neurofeedback protocols led to the gains in performance, or did they all contribute? With the correlation statistic described in Sect. 14.1.1, the ability of each student to learn each of the three protocols was

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[4] For technical details see Egner and Gruzelier (2003).
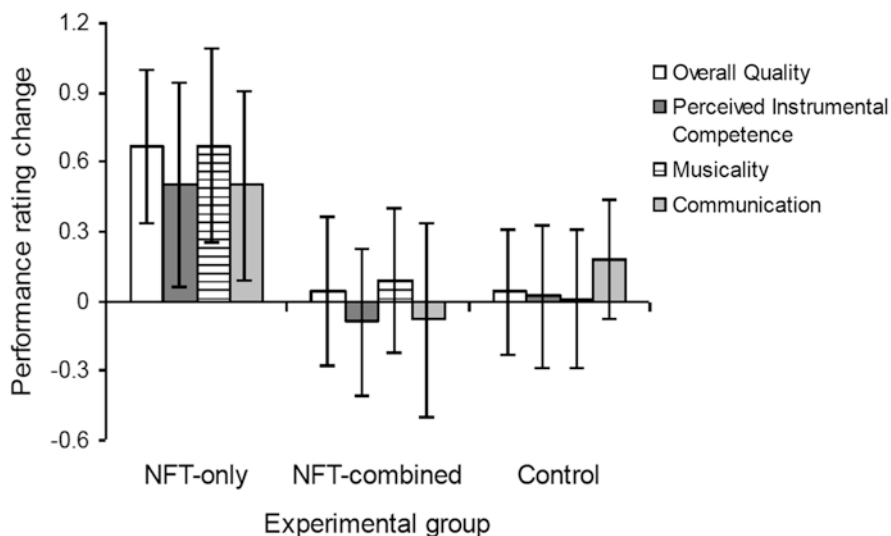
Fig. 14.3 Elite musician Study 1 mean expert rating change scores for overall quality, technical competence, musicality and communication for the neurofeedback only, combined intervention and no-training control groups (Egner and Gruzelier 2003)

Table 14.2 Correlations and *p* values for Study 1 between elite music performance rating scales and changes in performance following alpha/theta learning

	A/T Learning	
	r	*p*
Overall quality	0.47	0.04
Perceived instrumental competence	0.5	0.03
Level of technical security	0.39	0.09
Rhythmic accuracy	0.65	0.00
Tonal quality and Spectrum	0.39	0.14
Musicality/musical understanding	0.54	0.02
Stylistic accuracy	0.58	0.01
Interpretative imagination	0.48	0.04
Expressive range	0.53	0.02
Communication	0.55	0.01
Deportment	0.45	0.05
Emotional commitment pod conviction	0.51	0.02
Ability to cope with situational stress	0.44	0.05

calculated and correlated with the ratings of the two experts. How did student neurofeedback learning relate to the experts' judgments?

Correlations disclosed that it was the slow wave neurofeedback that was responsible for the performance enhancement. And this was found across the board – for musicality, for communication and for technique, as well as for their various subcategories (see Table 14.2).

Incidentally we had also measured the state of anxiety while the students waited to perform (Spielberger et al. 1983). Indeed all the interventions were found helpful in reducing anxiety, but only the slow wave training went on to benefit music performance. This means that the slow wave neurofeedback did more than just alleviate performance anxiety.

At the same time there were some subjective benefits from the faster wave SMR/beta1 training, despite their not carrying over to performance enhancement as rated by the experts. A phenomenological analysis (Edge and Lancaster 2004, 81–82) on a subgroup of musicians found that the reduction in anxiety following fast-wave (SMR/beta1) training had a counterpart in subjective reports that included the introspection "it lets my mind breathe." This was elucidated further by subjective mood ratings (Thayer 1967), which had been obtained on the whole cohort of students after each SMR/beta1 training sessions. These ratings disclosed that SMR training increased the students' ratings of calmness when playing their instruments (Gruzelier 2014c, d). Furthermore in contemporaneous studies with the same students in our hospital laboratory, the SMR training had a favourable impact on laboratory measures of attention (Egner and Gruzelier 2001), as would be found in the second study (Egner and Gruzelier 2004).

Following the promise of this exploratory study, a second formal investigation (Egner and Gruzelier 2003) was undertaken involving six groups. Students were allocated to either slow slow-slow wave training ($n = 8$), beta1 wave training ($n = 9$), SMR wave training ($n = 9$), aerobic exercise ($n = 16$), mental skills training ($n = 9$) or Alexander training ($n = 10$). The Alexander technique involves postural training and relaxation (Barlow 1980), and has been widely taken up in performing arts conservatories.

The exploratory study results were confirmed exactly! It was only the slow-wave training that produced gains in performance. This time the gains were found in all the subscales of the musicality/creativity domain: musicality, stylistic accuracy and interpretative imagination – together with quality overall (see Fig. 14.4). Unlike the first study the potential benefits for technique and communication did not replicate.

Of significance for the pedagogic and professional value of the improvements, these were of the order of a class of degree honours. They ranged between 13.5% and 17%, with a mean improvement rate of 12% across all evaluation scales following slow wave training. The results, which through replication were reliable, were indeed remarkable and captured the attention of the music world and the media. A workshop was given at the Sydney music conservatorium, and a summer school course was given in the Lake Lugano conservatoire. They were reported on BBC television, radio and website and other networks and were published in magazines for musicians locally and abroad.
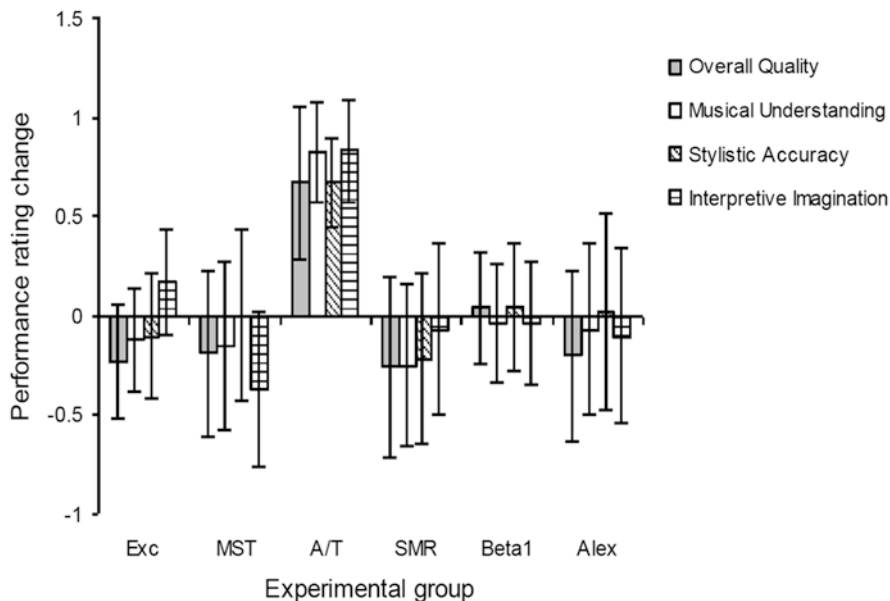
Fig. 14.4 Elite musician Study 2 mean expert rating change scores for overall quality and the three Musicality subscales for the groups receiving aerobic exercise (Exc), mental skills training (MST), Alpha/theta (A/T), sensory-motor rhythm (SMR), beta 1, and Alexander technique (Alex), showing advantages following A/T training (Egner and Gruzelier 2003)

14.5 Alpha/Theta Training and Creativity

What is the explanation for the efficacy of slow-wave neurofeedback in enhancing music performance? I will outline the dynamics of the slow-wave alpha/theta (A/T) protocol before considering associations with creativity. The participant is taught to raise theta (4–8 Hz) over alpha (8–12 Hz) amplitudes recorded from the posterior region of the brain. This is done while eyes are closed without falling asleep, and with the pleasurable auditory reinforcement of waves crashing slowly on the shore, sensual Thai gong sounds, etc. These pleasurable, reinforcing sounds are only heard when the targeted slow wave frequency bands are elevated. Typically on eye closure and relaxation the EEG displays high amplitude rhythmic alpha activity. With further deactivation alpha slowly subsides until theta gradually becomes predominant and increases. The crossover point at which theta activity supersedes alpha activity is commonly associated with alterations in consciousness leading to the onset of early stage I sleep.

Why would alpha/theta neurofeedback enhance artistic performance? Historically both alpha and theta have been implicated in the creative process. First, there has been longstanding awareness that creative insights often occur when one doesn't think about the problem to be solved but instead switches off, goes for a walk, engages in a mindless routine such as washing dishes, etc. Arousal level is low and

attention diffuse, as has been shown to accompany alpha activity. As a consequence the alpha spectral band has been implicated in low arousal and diffuse attention theories of creativity (Martindale 1999). More recently some empirical evidence has associated the alpha band with cognitive tests of fluency, originality, flexibility, etc. (e.g., Fink et al. 2009).

Interest in slow-wave theta activity arose through its potential as an index of 'hypnogogia.' This is the reverie or twilight state between waking and sleeping prior to stage I sleep, or the state of 'hypnopompia' on waking. It is a state of fragmentary images and thoughts. The novelist, philosopher, and activist Koestler in *The Act of Creation* (1964) cited a wealth of favourable historical documentation, which includes Cocteau conceiving the entire scenarios for plays during hypnopompia. Edison adopted a technique of holding a ball in his hand to maintain the borderline state so as not to slip into sleep. Controversially for a scientist, Kekulé, who in 1896 claimed to discover the benzene ring through a hypnogogic image of a snake biting its tail, became a hypnogogic advocate: 'let us learn to dream, gentlemen' (Koestler 1964, p. 118). In the light of these cultural reports the practical goal of the alpha/theta neurofeedback protocol was to enter the hypnogogic state by achieving the crossover progression from alpha to theta. Furthermore, as our performing arts studies show reliably for the first time, the A/T protocol has been especially efficacious in enhancing creative performance.

14.6   Novice Versus Advanced Music Performance in Adults

The next step in this scientific and cultural journey was funded by the National Endowment for Science, Technology and Arts UK (NESTA), who urged us to explore potential benefits for novice musical abilities. We evolved a unique strategy for our research design. We set out to contrast in the same musicians novice abilities with elite musical abilities. We recruited advanced student instrumentalists who had novice singing ability and no aspiration to sing. This strategy would minimise extraneous differences that might occur if the novice versus advanced ability comparisons were done with different groups of musicians.

An additional innovation aimed at the impact of neurofeedback on creativity was to include music improvisation (Sawyer 2000) for both singing and instrumental playing. Unlike in UK acting academies where improvisation is a substantive part of the curriculum, improvising was not conventionally taught in UK conservatoires at the time (Creech et al. 2008). For this reason improvising was categorised as being at a novice level.

We moved to a different institution. Trinity/Laban Music and Dance conservatoire music students were randomly assigned to A/T ($n = 8$), SMR ($n = 8$) or non-intervention control ($n = 7$) groups. Advanced performance consisted of two prepared instrumental pieces as before, while novice vocal performance offered a choice of two unprepared Benjamin Britten folk songs, accompanied by a pianist. Given that Britten was one of the most famous British composers of the twentieth

century the folk songs would be familiar to the public and certainly to musicians. Instrumental improvisation involved the choice of one theme from a menu, for example walking on the moon, a crowded market place, etc. Vocal improvisation consisted of Stripsody (Berberian 1966) whereby notation was presented as a cartoon-strip on a stave having time and pitch axes, and performed 'as if by a radio sound man who must provide all the sound effects with his voice.' The aim was to facilitate highly expressive and imaginative performance. Stripsody does not require trained vocal ability. One of our judges had sung Stripsody internationally and was thoroughly familiar with this avant garde performance type. As before (Sects. 14.2, 14.1.1) performances were filmed and randomised for pre- post-training order and group with expert raters whose inter-rater reliabilities ranged between $r = 0.72$ and 0.89.

Another methodological innovation was of particular significance in extrapolating the results to actors. Up to this point the reader may question whether despite the remarkable results from alpha/theta training snapped up by the conservatoire academics and media, the gains from neurofeedback are just a matter for the cognoscenti. The innovation was to recruit lay raters. Were the putative improvements sufficiently transparent to be communicated to the public? We focused on the communication domain of performance: expressivity, stage presence and confidence. Three lay observers (inter-rater reliability $r = 0.81$) assessed the folk song, comparing the two neurofeedback groups.

In summarising the main results, let us consider the lay perspective first. I should disclose that the two expert judges, who incidentally were new to neurofeedback and did not take part in the previous studies, did report that communication improved in singing the folk songs following alpha/theta training. They found even greater gains in musicality/creativity, replicating findings from the earlier studies. Did the lay observers see the advantages for the communication/presentation domain in performance? Yes they did. The gains in the communication domain were reported in all three features – in confidence, in stage presence and in expressiveness, as shown in Fig. 14.5.[5] Speaking scientifically, the validity of the evaluations is strengthened by the high reliability statistic between the three raters, as well as the consistency of the lay judgments with the experts' ratings. In addition, we saw a high positive correlation between the students' A/T learning and the lay ratings of confidence. We can conclude therefore that performance improvements following neurofeedback do not require an informed judgment. The results are shown in Fig. 14.5.

To consider just the main results about the efficacy of A/T training in this study, all domains of advanced instrumental music performance—not only creative performance but also communication—replicated the result of the very first exploratory music study. But what of novice singing and improvising, with voice examined here for the first time? Yes, there were benefits. The folk songs improved in both creativity and communication domains as judged by the experts.

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[5] Furthermore, the lack of improvement following SMR training shows that the gain in communication was not just because singing improved with familiarity, practice, or training.
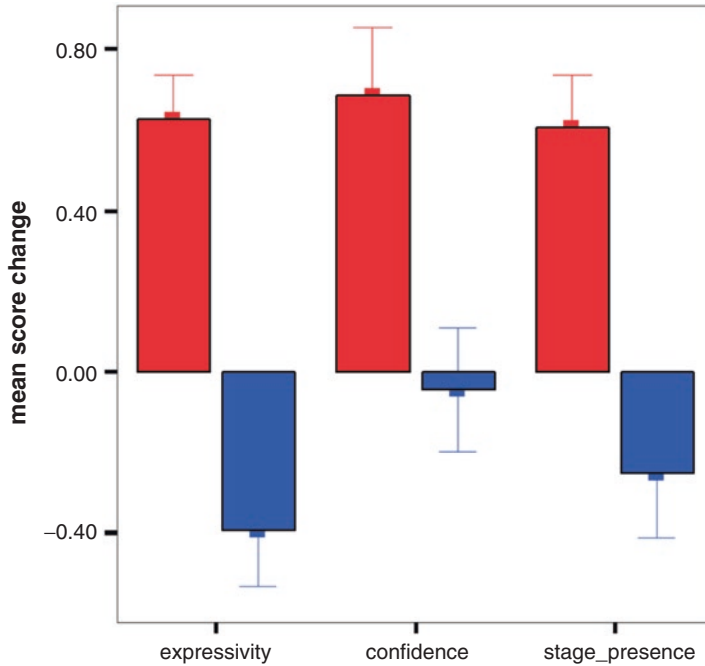
Fig. 14.5 Lay ratings of Communication showing advantages following A/T training when compared with SMR training in musicians' novice folk song (Gruzelier et al. 2014a; Gruzelier 2014a)

Then, as shown in Fig. 14.6, vocalizing the somewhat outrageous Stripsody cartoon strip improved in all three domains: musicality/communication (interpretative imagination), communication/presentation (deportment, emotional commitment and conviction, confidence and being at-one with voice), and technique (vocal performance overall and tonal quality).

As far as instrumental improvisation is concerned, there were no performance gains from A/T training. This result was likely due to a floor effect because the level of performance was judged to be poor overall. Perhaps students were constrained in the conservatoire setting where it was unusual to improvise with their primary instrument, whereas with Stripsody they had nothing to lose.

The other main innovation involved our speculation that SMR training would be of particular value for novice performance. This is in view of the potentially greater demands novice performers have on fundamental mental processes such as attention, keeping thoughts in memory and psychomotor skill, as in playing an instrument. Yes, following SMR training, gains were found for novice vocal technical performance, especially pitch, with the folk song. Results disclosed that the better the SMR learning the greater was the impact on instrumental improvisation, particularly on emotional commitment. In replication of the earlier studies (Egner and
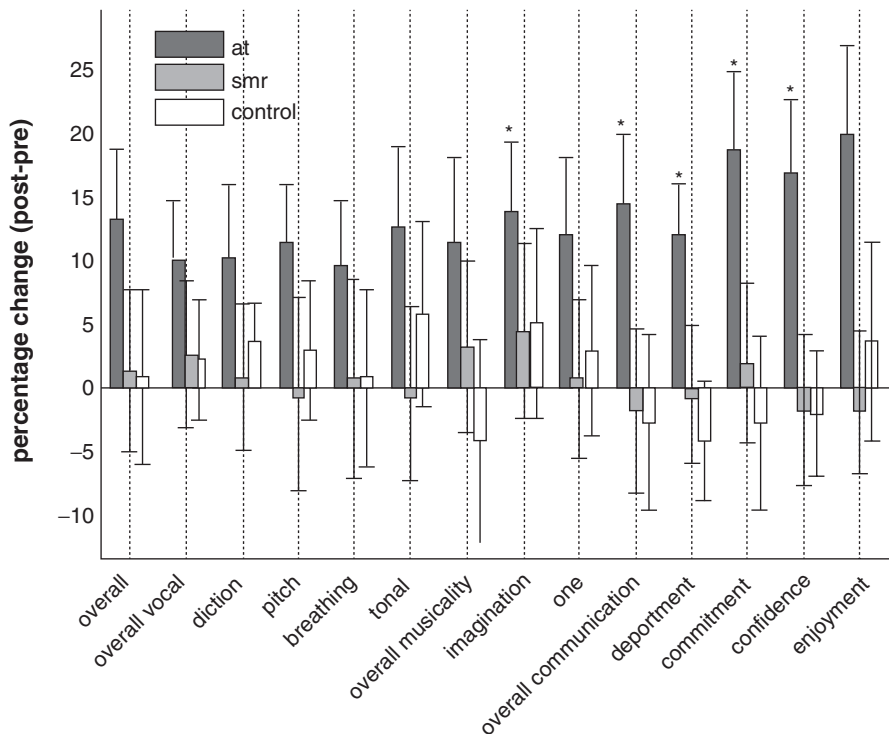
Fig. 14.6 Musicians' novice Stripsody improvised vocal performance showing expert rating advantages following A/T training compared with SMR neurofeedback and no-training controls (Gruzelier et al. 2014a)

Gruzelier 2003) there was no impact of SMR training when it came to advanced instrumental performance.

We confirmed the advantages of SMR training for novice performance in a study of eleven year old children in a school setting (Gruzelier et al. 2014b). We examined prepared instrumental or vocal performance with improvisation, comparing SMR and alpha/theta training with a control group. Both neurofeedback procedures were beneficial (Gruzelier 2014b).

14.7 Dance Performance

We have conducted two dance studies that serve to introduce another technique that would be of value for actors. We compared A/T neurofeedback with heart rate variability (HRV) biofeedback. This procedure aims to induce a coherent waveform in the ordinarily erratic moment by moment heat beat changes, as can also be achieved with slow paced breathing. Again the participant watches a screen giving feedback

about learned regulation of the heart rhythm. HRV training has been successfully combined with self-hypnosis and osteopathic soft tissue manipulation in a physically and emotionally compromised ballet dancer (Gordon and Gruzelier 2003).

The first study (Raymond et al. 2005) involved ballroom and Latin dancers from a competitive team. They performed in male–female pairs and were assessed individually by two world ranking dance assessors. A scale used for national dance assessments incorporated categories of technique, musicality, timing, partnering skill, performing flair and overall execution. The dancers were randomly allocated to A/T, HRV, and control groups (N = 6, 4, 8 after dropouts). They received up to ten sessions of training over four weeks. Both training groups improved more than the control group in overall dance execution, despite practice.

In the second study (Gruzelier et al. 2014c) 45 first years at the Trinity/Laban Music and Dance conservatoire were examined with a 40-second modern dance phrase created by the faculty. They were randomised into one of four groups: A/T, HRV, No-intervention, or Choreology tutorials on Laban dance theory[6]. There were eight or more 20-minute training sessions, once a week, and to accommodate the curriculum 18 subjects were trained during 1.5 hours in the same room in groups of six, while choreology involved ten group sessions. Dance assessments were twelve weeks apart; performers were rated for artistry and technical performance by four dance experts blind to order and group (inter-rater reliability r = 0.56). Cognitive creativity in the form of divergent thinking and insight was assessed respectively with the Alternative Uses Test (Guilford 1967) and Insight Problems (Dow and Mayer 2004). Mood was assessed with the Depression, Anxiety and Stress Scale (Lovibond and Lovibond 1995).

Whereas there was clear evidence of HRV learning, A/T learning was slower to take place than customary, perhaps because the goal of hypnogogia was hampered by the group learning sessions. None of the three interventions improved dance performance, the 40-second dance phrase possibly insufficient to manifest dancers' creativity. However, a reduction in reported anxiety followed HRV training, and anxiety reduction in the cohort as a whole was associated with improvements in artistry and technique. Following A/T training the cognitive expressive creativity score increased when compared with the no-intervention control group, in line with theory (Sect. 14.5).

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[6] Rudolf Laban was a dancer and theorist born in Hungary who emigrated from Nazi Germany to England where he consolidated his theories of choreography, movement and dance notation (choreology).

14.8 Neurofeedback Enhances Creativity in the Performing Arts

In concluding, we have demonstrated the potential neurofeedback has for performance enhancement. Neurofeedback has enhanced creativity in actors, musicians and dancers, extending to how the performers communicate with the audience, and to their performance technique. This enhancement is not just true of relatively advanced and elite performers, but also when performance is at a novice level in adults and in children. In terms of magnitude the gains in elite musicians were shown to be of professional significance. To date alpha/theta slow-wave training produces the larger evidence base of highly replicable gains in performance applicable to both advanced and novice levels of performance. And the robustness of the improvements is highlighted by their having a striking impact on lay judges. The faster wave SMR training also had a positive effect on novice performance including creative improvising. From a scientific perspective the consistency of the evidence outlined here on arts performance is in contrast to the elusive nature of laboratory demonstrations on cognitive measures of creativity (Boynton 2001; Doppelmayr and Weber 2011).

In view of the strong evidence of the efficacy of A/T training with musicians as well as its benefits for ballroom dancers, it is likely to have advantages for actors. Preliminary evidence disclosed that actors had a remarkable facility for slow wave regulation in A/T training.[7] Nevertheless putative advantages were supported by the remarkable ease within sessions with which the actors so quickly reached the crossover state reliably from the first session onwards. In over a thousand sessions with the technique, we had not observed such ease in changing states before. In view of actors' facility to let go and enter hypnogogia swiftly in the midst of a day of classes, we explored guiding their imagery with a subset of the A/T group. They were asked when in hypnogogia to conjure up the role they were currently rehearsing. However, this prompt proved to compromise the cross-over, likely due to active thinking, and also supported the received wisdom from clinical practice that it was important to make mental state instructions as nonspecific as possible, such as focusing on a general sense of empowerment in life goals.

Then our formal study with actors (Sect. 14.2) had clear benefits for performance overall, but especially creativity in acting consisting of imaginative expression, conviction and characterization. This involved SMR neurofeedback, but with the novel innovation of immersive methodology, associating the neurofeedback training context with the context of stage performance. Not only were improvements seen by the experts but also through the subjective evaluation by the actors of flow in performance.

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[7] Unfortunately a large scale study comparing the two neurofeeedback protocols versus controls was aborted due to a failure of commitment on the part of the acting academy to schedule post-training acting performances.

Our studies offer other potential neurofeedback applications for actors. First, heart rate coherence feedback enhanced performance in both the ballroom and contemporary dancer studies. In the competitive ballroom dancers heart rate coherence improved overall execution, especially technique ratings, while in contemporary dancers it reduced anxiety, which was associated affirmatively with both artistry and technique. Heart rate coherence has a bearing on whole body movement through cardiovascular adjustment, and movement is exemplified in both dancing and acting. Secondly, in our aborted actor study we included improvisation assessment, as improvising is such a cardinal feature of acting academy instruction (Frost and Yarrow 2015). As outlined above improvisation in advanced musicians had benefitted from neurofeedback to include novice level performance, and this extended to eleven year old children. As part of improvisation motion exercises there is a considerable vogue in mirroring in pairs (Noy et al. 2011). Here our dance studies may be relevant for the ballroom dancers were assessed for artistry in pairs. A/T training and heart rate coherence training were indeed successful in elevating artistry in the dancers, who incidentally went on to win the UK university championship. This offers another potential paradigm for evaluating creative motion.

14.9   Ecological Validity in Measuring Creativity

Finally this pioneering research on performance enhancement in the Arts has a particular resonance for contemporary issues in the science of creativity now considered. The assessment of live stage performance exemplifies real-life validity, and accordingly assessment of artistic performance provides a window on creativity that has seldom entered the scientific arena. The lack of ecological validity in the measurement of creativity has been of cardinal concern to contemporary commentators who have been united in their advocacy for the need to develop creativity measures with ecological validity (Sternberg 1985; Sawyer 2000; Jausovec and Jausovec 2011; Runco and Bahleda 1986). For over half a century scientific measurement has remained more or less moribund, with little advance on classical cognitive tests, nor on methods of stimulating creativity, nor on temporal constructs about the development of the creative process, while excursions into the realm of creative insight in problem solving puzzles is voguish. The neurofeedback studies of artistic performance with validation through real-life, on-stage creativity, where improvements correlated affirmatively with neurofeedback learning, provide a way forward in grappling with the need for ecological validity.

A long standing debate surrounds the measurement of the creative process versus the creative product, with the majority of research focusing on the latter (Martindale 1999). The approaches reviewed here address assessment of a person's creative process as well as their creative product. Monitoring the learning process where it culminates in an enhancement of the creative output could illuminate the nature of creative processes. Here transfer from the 'brain training' context to the real world has been realised. Furthermore there is potential to monitor the trainability of

creative processes over time through the pattern of training-induced changes in brain activity.

In concluding, aside from the advocacy of the performing arts as an avenue for investigating creativity, there are other methodological implications encountered in this chapter. The results are of pedagogical significance for the performing arts at both novice and elite levels, and can be of professional significance for the elite performer. The feasibility of coordinating training within conservatoire and school curricula has been demonstrated. Results exemplify the viability of the methods of subjective expert assessment, which have suffered criticism (Piffer 2012), and exemplification showed the value of a broad repertoire of assessment. Evidence here vindicates the viability of an artist's subjective experience, as in the reports of flow. Finally the studies represent pioneering attempts at measuring stage performance for development; measurement in the performing arts is in its infancy, especially acting performance where the conservatoire ethos, at least in the UK, has been that it is beyond measurement. Psychological intervention with neurofeedback in the performing arts has ventured into horizons new, horizons far beyond the province of stage fright and performance anxiety, which has been the conventional platform for psychological intervention in the performing arts.

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Chapter 15
Creativity Theory and Action in Bioengineering Class

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Abstract In this chapter, we describe how a bioengineering professor and a theatre professor collaborated to implement a creativity curriculum in a bioengineering capstone design course. Starting in 2015, the team has not only embedded theatre-based creativity instruction in the fall semester class but researched the impact of the pilot training projects. In order to measure impact, the team utilized an instrument that was designed and validated to evaluate engineering design self-efficacy (Carberry AR, Lee H.-S, and Ohland MW, J Eng Educ, 99(1):71–79, 2010). The survey includes 36 items and four factors: confidence, motivation, success and anxiety. Pre-post test results indicated that students who received creativity instruction improved their self-efficacy in engineering design twice as much as the control group. Noted psychologist Albert Bandura's self-efficacy theory (Self-efficacy: the exercise of control. Freeman, New York, 1997) is relevant to creativity, since experts such as Robinson (Robinson K, Out of our minds: Learning to be creative, (Rev. ed.). Capstone, Chichester, U.K. 2011) point out that many students are conditioned by parents, society, and the school system, to believe they inherently lack creativity.

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Any approach to creativity education must address this issue and help students rediscover their innate creative potential.

The second pilot (Fall 2016), funded by a campus interdisciplinary research grant, not only replicated the self-efficacy results of the first pilot but added a second evaluation step to determine if the quality of the ultimate capstone project outcomes differed between the experimental and control groups when evaluated by content experts. The second pilot resulted in our team receiving another campus grant for a third pilot and convinced the Bioengineering Department to embed creativity training permanently into their capstone course.

15.1 Who Would Have Guessed?

Who would have guessed that faculty from opposite sides of campus would join forces to teach creativity to bioengineering capstone students? Ferris Pfeiffer (bioengineering) and Suzanne Burgoyne (theatre) carried out two such pilot projects at the University of Missouri; pre-post test results indicated that students who received creativity instruction improved their self-efficacy in engineering design twice as much as the control group. Furthermore, our team received a grant for a third pilot and convinced the Bioengineering Department to embed creativity training permanently into their capstone course. In this chapter, we narrate how these unlikely collaborators came together, describe the creativity training research we conducted in the bioengineering capstone class, and support our argument that creativity instruction can have a positive impact on bioengineering students.

15.2 Why Teach Creativity to Undergraduate Engineers?

In *Creativity in Engineering* (2015a), David H. Cropley "make[s] the case for the importance of creativity (and therefore innovation) in engineering" (p. 257). A prolific creativity researcher, Cropley is an Associate Professor of Engineering Innovation at the University of South Australia. Joseph Berk, who teaches engineering at California State Polytechnic University, notes engineers' belief that "engineers are among the most creative people on the planet"—but points out that, alas, they're really not (2013, p. 2). Berk cites research showing that human "creativity is at its peak when we are about 5 years old" but that "we lose as much as 98% of our creativity by the time we finish high school" (p. 5). We are "conditioned" into conformity, Berk says: "In short, our education system and our social environment do a pretty good job of beating the creativity out of us" (p. 6).

While technological innovation generates a nation's economic growth, Cropley argues, rapid technological change in the twenty-first century brings continuous new problems. "It seems axiomatic, therefore," he adds, "that teaching engineers (and other STEM disciplines) to think creatively is absolutely essential" (2010b, p. 405). Having researched engineering education, Cropley bemoans its failure to integrate creative thinking into the curriculum, even though employers want

engineering graduates to create and innovate. Traditional methods for teaching engineering design courses do not typically promote creativity (Zenios and Makower 2009). Furthermore, Cropley quotes students complaining about loss of excitement, curiosity, and passion in engineering classrooms (2015a, p. 260). While initial efforts have attempted to integrate lessons from the arts into STEM education (e.g., http://stemtosteam.org/), limited evidence has been gathered to date to testify to the effectiveness of such approaches.

It is generally accepted, in the field of engineering, that collaboration and interdisciplinary work are beneficial, but why is this so? Perhaps "non-traditional" interactions between disciplines as different as theatre and engineering contribute to what creativity educator Jane Piirto terms "synchronicity," and she includes *cultivation of synchronicity* in her list of creativity training exercises. Piirto uses Carl Jung's term for meaningful coincidence in arguing that "Many accounts of creativity have asserted that coincidence and chance led to the putting together of the creative work. Some psychologists, physicists, and spiritual people have asserted that nothing is by chance, that all coincidence is meaningful" (2004, p. 440). Ferris has personally experienced such synchronous aspects of creativity in many ways. In his research, presented with the opportunity to participate in a seemingly unrelated matter (such as participating on a panel of experts, serving as a student mentor, testing materials for a colleague, etc.), new projects and collaborations often spring forth. Just saying "yes" to an opportunity often leads to meaningful future collaborations. A similar synchronous event led to the origination of this project. In this chapter, we will share with you the journey of our interdisciplinary partnership as we took a risk: to implement and research a theatre-based creativity program in a bioengineering classroom. We begin with how Ferris's and Suzanne's personal trajectories led to their serendipitous meeting at the University of Missouri.

15.2.1 Ferris's Story: What Led to the Initiation of a Curriculum of Creativity?

In the spring of 2015, my two children (Jack, age 11 at the time, and Natalie, age 6 at the time) participated in a production of Rapunzel *produced by the Mizzoula Children's Theatre (MCT). MCT is a gifted group of actors, directors, teachers, and mentors who travel the world to bring theatre and acting experience to children from kindergarten through high school. The process begins on a Monday when the children audition. Rehearsals proceed throughout the week, and the cast puts on two shows for the community on Saturday. Everything all occurs within the span of six days. Children from various backgrounds, of various ages, and with various abilities come together to bring to brilliant life a cast of characters. This entire process struck me as an engineering professor. I began to see a lot of parallels between the behaviors of the young actors and behaviors I wanted to see from my*

engineering students, as such behaviors will be expected of them later as they grad-uate and enter the workforce (more on that later).

One particular aspect of the MCT rehearsal week struck me very profoundly. On Friday, the kids were given their costumes to try on. The directors sent half of the approximately 60 cast members backstage for a costume fitting while the remaining cast members waited in the audience. As kids will do, the kids waiting began to get a little restless. At that point, one of the directors stood up and announced, "We are going to have a talent show right now." He stated that the kids could demonstrate any talent they had, such as telling a joke, singing, dancing, etc., but it had to be something they already knew how to do. At that moment, every hand in the audience went up. They all wanted to perform. There was no fear of failure or "looking silly." These kids were bold, they were confident, they were talented, and they were cre-ative. And they wanted to be on stage. Keep in mind that most of these kids did not know each other on Monday. My son knew no one in the room (other than his sister and me) when the week started, and at that age he was shy in front of strangers. Yet he was one of the first to get up and tell a joke for the crowd. I was completely blown away.

Again, I thought of my engineering students. I thought how many times I ask a question in class and there is not a single response; my students are afraid of giving a wrong answer. In the engineering field (and throughout much STEM education), we have conditioned students to avoid being wrong at all costs. This conditioning has made them fearful, unwilling to take chances. Such behavior limits and/or elim-inates creativity in their personal and professional lives, yet we expect engineers to think-outside-the-box to solve society's problems. I want my engineering students to be as fearless, as bold, and as creative as that young cast.

As the week went on, I noticed additional parallels between behaviors the cast was demonstrating and behaviors I wanted my students to have. During the audi-tion, the directors efficiently and effectively put the right member of the cast into the right role. I wonder if that could be done in industry to assign engineers to projects. I saw the cast become a cohesive unit that was able to follow the direction of leader-ship (the directors) efficiently while still maintaining independence and their own individual creative inputs. Can this type of creative teamwork be implemented in the teacher/student paradigm or even in industry?

Following this experience with MCT (and by the way a joyful performance of Rapunzel*), I began seeking a way to bring things I had seen in the theatre to my teaching and my students. Initially, I arrogantly thought I was the first person in the world to have the idea of combining theatre with non-arts disciplines. I assumed I would need to contact a theatre department and beg or arm twist someone into help-ing me. I assumed wrong. To my surprise I found that the University of Missouri's Theatre Department is a leader in interdisciplinary innovation. The Center for Applied Theatre and Drama Research, directed by Dr. Suzanne Burgoyne, was way ahead of me. I contacted Suzanne in early Summer 2015. I told her my story, and she and I set out to adapt the creativity course she was teaching into a "Curriculum of Creativity" that could be applied to students in Bioengineering Capstone Design (BE4980).*

15.2.2 Suzanne's Story: What Led to Using Theatre to Teach Creativity?

Students in my creativity classes have shared personal stories about how some aspect of their creativity was squashed when they were children. One young woman revealed, "I was terrified to sing in front of people. After I was rejected once in elementary school, I have always thought I was a terrible singer" (student journal 2013). A young man whose teacher posted his drawing where it couldn't be seen by visitors to the school art show came away afraid to draw. In his famous 2006 TED talk, Sir Ken Robinson argues that all of us are born creative; our educational system, however, not only fails to nurture creativity but actively inhibits it. The crushing of creativity happened to me, too. After acting since I was eight and winning lead roles in school, I attended a summer acting institute, where my class performance was met by the teacher's dread comment, "I don't believe you." I remember that awful moment vividly.

Although I had dreamed of becoming an actress, that one experience stopped me from pursuing the dream. Ronald A. Beghetto (2013) refers to such experiences as creative mortification, noting that when such moments occur, "What was once a creative aspiration becomes little more than a painful memory" (p. 88). Some years later, I decided to study for a Ph.D. and teach university theatre. But I still didn't believe I was creative.

I worked hard to develop skills at directing plays. In my doctoral program, I had been introduced to incorporating theatre exercises into a rehearsal process—though I can't say I was taught what exercises to use or how to use them. I chose theatre games and improvisations to help actors connect to their characters, as well as to the play's meaning. The exercises seemed to improve actors' performances, so I kept experimenting. I still didn't believe I was creative, though.

Then in my sixth year of college teaching, I chose to direct Arthur Miller's The Crucible. *Miller creates an analogy between the Salem witch hunts and McCarthyism; his* Crucible *is a psycho-social investigation into the root causes of human evil. At the first read-through, I pointed out to the cast the protagonist's lines: "Now Heaven and Hell grapple on our backs, and all our old pretense is ripped away . . . we are only what we always were, but naked now" (Miller 1971, p. 81). In order to play the script truthfully, I said, we must probe the crisis that strips the characters naked, discover why people accuse their neighbors in murderous frenzy (Dieckman 1991, p. 1). To confront the dark side of human nature with my actors, I put together a "witches' brew" of exercises including a snip of Stanislavski, a glimpse of guided imagery, the drumming of a racing heartbeat, as well as a pinch of psychodrama[1] and a puff of psychological gesture.[2] I did the exercises along with the cast.*

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[1] For an explanation of psychodrama, see Nolte, this volume, Chap. 12.

[2] Konstantin Stanislavski (1863–1938) is considered the founder of modern acting theory and practice. His student Michael Chekhov (1891–1955), nephew of playwright Anton Chekhov, was a major twentieth century actor and acting teacher who developed a technique he called "psychological gesture," which involved the actor embodying the major qualities of his character in a symbolic physical image.

It felt as if a dike within me had burst open, and creative ideas kept gushing out, faster and faster. The student actors gave the best performances I'd ever seen from any of them. A local reviewer's headline read, "Powerful Crucible *Casts Spell on Creighton Crowd" (Millburg 1980, p. 39). I suddenly realized that theatre exercises could be effective pedagogy for other fields—and help to free suppressed creativity.*

As a result of my discovery, I applied for a 3-year Kellogg National Fellowship, which supported leadership training and interdisciplinary research. Kellogg accepted me but turned down my proposed project: to form an interdisciplinary research team to study how creativity can be stimulated during a rehearsal process. The fellowship administrators wanted me to venture further from my original discipline. So I took training in arts therapy, especially psychodrama, and founded an interactive theatre troupe providing alcohol awareness performances on campus. I was adapting theatre exercises for pedagogical purposes, but teaching creativity got put aside for a time.

In the mid-2000s, I noticed a growing national interest in creativity as a twenty-first century skill. With the hearty approval of my dean, in 2010 I applied for a year's faculty development leave to study the teaching of creativity, and designed a theatre-based course for the Honors College. I didn't know, of course, if my idea that theatre exercises could facilitate creativity for students in other fields would work, but I was definitely feeling creative again.

15.2.3   What Do We Mean by Creativity?

What do we mean by "creativity"? In general, definitions of creativity include at least two elements: (1) the thing created must be original, and (2) it must be recognized as useful (e.g., Kaufman 2009). Csíkszentmihályi divided creativity into *Big-C* and *little-c* (1996). Big-C creators produce major ideas that change their discipline—if not the world. Little-c creators come up with ideas that make everyday lives better. Finding the 2-C model too limited, Beghetto and Kaufman (2010) added 2 additional cs: (1) *Pro-c level creativity*, demonstrated by professionals who haven't reached Big-C eminence; (2) *mini-c creativity*, which focuses on personally meaningful discoveries that may occur while a student is learning (p. 195). Ferris and Suzanne do not try to transform students into Big-C creators, but while applauding mini-c creativity, we encourage students to work towards Pro-c level.

15.2.4 What Was Bioengineering's Capstone Design Like Prior to Implementing a Curriculum of Creativity.

At the University of Missouri, all engineering departments offer a senior level capstone design class that builds upon all previous skills students have acquired in their undergraduate education. In the Department of Bioengineering (BE), capstone design (BE4980) is taught as a one-semester course in which student design teams (3–5 members per team) begin with a pre-defined engineering "problem" and work throughout the semester to develop a complete design solution. Prior to 2015, course objectives included students learning how to work in teams, gathering information, planning action, technical analysis, economics and management, and synthesizing and communicating a solution. Design content was delivered in a traditional lecture, once a week for an hour. Students also worked directly with a technical expert to complete their projects. In Fall 2015, Ferris proposed to add creativity sessions to determine whether we would see engineering students exhibiting creative behaviors similar to those demonstrated by the young cast in the MCT production.

15.3 Description of Project

Creativity Instruction Methods: The methods of creativity instruction for all the pilots draw upon strategies embedded in Suzanne's Honors College course, "Creativity for the Non-Arts Major." This process integrates active learning techniques from actor training, improvisation, and Theatre of the Oppressed (Boal 2002) with creative problem-solving methods from multiple research-based sources (e.g., Sawyer 2012, 2013). Based on current research in cognitive psychology, active learning puts students in the center of the learning process; they learn by engaging in relevant activities and reflecting upon what they've learned, as opposed to the passive method of listening to lectures and regurgitating what the teacher said (e.g., Michael 2006). Research now shows that, as Michael proclaims, "Active learning works....large bodies of evidence from a number of different fields [support] the effectiveness of active learning" (Michael 2006, p. 164). For instance, one study comparing active learning with traditional lecture in a large physics class demonstrated that the former method not only enhanced student engagement and motivation but resulted in twice as much learning as the latter (Deslauriers et al. 2011).

Cropley took as a model the work of creativity expert Robert Sternberg (2007), proposing "twelve strategies that should serve as general principles for curriculum and programme design in STEM disciplines" (2015b, p. 407). These strategies resemble those found in other creativity texts and include such matters as providing a supportive environment and encouraging sensible risk-taking. Robinson, for instance, argues that traditional education instills in students a fear of being wrong. If one is afraid of being wrong, one cannot take risks, and if one cannot take risks, one will never create anything new (2011). In our creativity sessions, we use theatre

education techniques to develop a learning environment in which students support each other in taking risks, and where no one is punished for trying and failing, or for looking foolish.

Another strategy involves questioning and analyzing assumptions. Assumptions prevent students from seeing things differently, which is necessary in order to come up with original ideas. Our creativity curriculum includes theatre exercises, videos, and other techniques to help students realize how they are constrained by their assumptions. Exercises from Boal's *Games for Actors and Non-Actors* (2002) are useful because they are designed to free students from cultural conditioning.

An additional important strategy involves building students' self-efficacy (Cropley 2015b). Noted psychologist Albert Bandura's theory of self-efficacy proposes that people's beliefs in their capability to achieve a task affect their actual ability to achieve that task—if they have the requisite skills. Bandura points to numerous studies showing that people who rate their self-efficacy high for a particular task will be more motivated, and will perform better, than people with more ability who rate their self-efficacy lower (1997, p. 4). Self-efficacy theory is relevant to creativity, since experts such as Robinson point out that many students are conditioned to believe they inherently lack creativity. Any approach to creativity education must address this issue and encourage students to rediscover their innate creative potential (2011, p. 4).

Design fixation, committing to an early solution or approach instead of exploring alternatives, can be a serious obstacle to creativity in engineering. Although some research on this cognitive block has been done, no universal solution has yet been found (Crilly 2015). We use theatre exercises (such as "transforming" an umbrella through using it as a fishing pole, a golf club, etc.) to generate new perspectives and ultimately stimulate a variety of ideas about a group project or problem.

An active learning exercise we do early in creativity exploration is called "The Cyclops." The students each form the Cyclops's great eye by putting their hands together in a circle framing their eyes. Like the mean Cyclops, they stomp angrily about, bumping into others and grumbling. During the debriefing, we ask if the Cyclops exercise reminds students of anything they do in their everyday lives. Someone inevitably mentions "tunnel vision," and a discussion ensues about how focusing on a goal can blind us to other things. To be creative, we need to challenge our assumptions and learn to see things differently. Perhaps not by accident, the designers Crilly interviewed often referred to design fixation as "tunnel vision" (2015, p. 66).

15.3.1   Pilot #1

In Fall 2015, Ferris and Suzanne administered a pilot project, assisted by Theatre doctoral student Rachel Bauer. In this first pilot, senior bioengineering capstone design students ($n = 45$) self-selected into groups ($n = 5$ per group) based upon

capstone design projects pre-identified by the faculty mentors facilitating the class. A sub-set (3 groups; $n = 15$ total students) were randomly assigned to the experimental (E) group, Ferris's section of the course. All other students were assigned to the control (C) group. The whole class received standard instruction, but in addition, Suzanne and Rachel met for an hour once a week for six weeks with Ferris's BE4980 students. We provided creative thinking instruction, which student teams applied directly to developing their capstone design projects.

Whether or not existing tests actually measure creativity is highly controversial (e.g., Piirto 2004, Gardner 1982). We therefore decided to use student self-efficacy as our quantitative measure. Not only is building self-efficacy one of the strategies Cropley identifies for working with engineers (2015a) but workplace research suggests that within-individual increases in creative self-efficacy improve performance, particularly innovative behavior (Ng and Lucianetti 2016) and that strategies to promote self-efficacy have been shown to be antecedent to workplace performance (Diamantidis and Chatzoglou 2014).

The team utilized an instrument that was designed and validated to evaluate engineering design self-efficacy (Carberry et al. 2010). The survey includes 36 items and four factors: confidence, motivation, success and anxiety. (See Appendix 1.) Prior to the beginning of coursework, all students completed this survey.

Following the semester, the students again took the self-efficacy survey. The surveys were examined to identify differences between the initial and final self-efficacy scores as well as to compare change in the experimental and control groups over the course of the semester. An analysis of variance was used to compare the experimental and control groups with $p < 0.05$ considered significant.

Students in the experimental group reported more than a two-fold (4.8 (C) vs. 10.9 (E)) increase of confidence in their ability to perform engineering design following a single semester of creativity education (Fig. 15.1 column a). Substantial increases in student confidence were seen in other surveyed areas as well, with the exception of prototype development (Fig. 15.1 column f) and design evaluation (Fig. 15.1 column g). Additionally, after a semester of creativity training, students in the experimental group were more motivated (4.2 (E) vs. 0.2 (C)) (Fig. 15.2) and less anxious (-7 (E) vs. -6.2 (C)) (Fig. 15.3) than those in the control group when engaging in engineering design. The only surveyed areas in which students in the experimental group were significantly less confident and motivated as well as more anxious than students in the control group were in the areas of constructing a prototype and evaluating their design (Figs. 15.1, 15.2, 15.3 columns f and g). Prototyping and design evaluation were not a focus of the class in general and were not covered in the creativity curriculum.

The results of pilot study #1 indicated significant potential to improve engineering students' creative self-efficacy through the implementation of a theatre-based creativity curriculum. To pursue further research in integrating creativity instruction into the bioengineering capstone, we applied for and received a Mizzou Advantage grant, awarded by a program that supports innovative interdisciplinary research on campus.
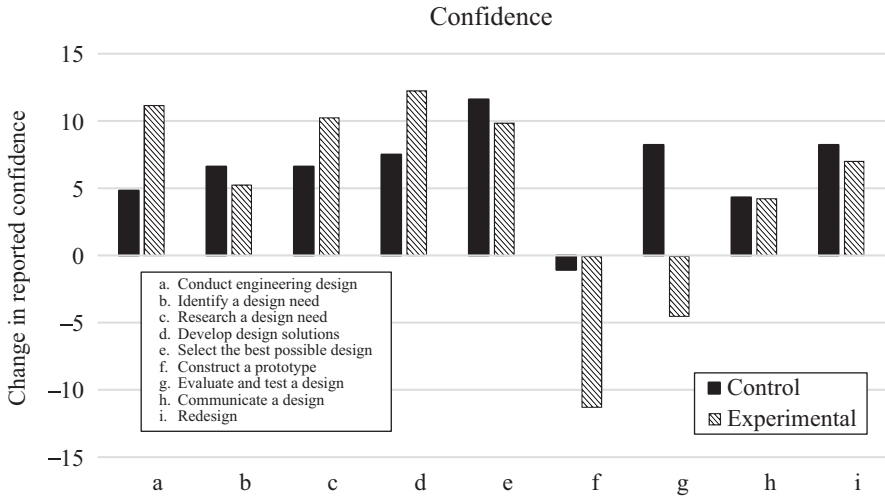
Fig. 15.1 Student self-reported change in **confidence** in the engineering design process following a semester using a "curriculum of creativity." (columns a-i correspond to Appendix 1 and the key above)
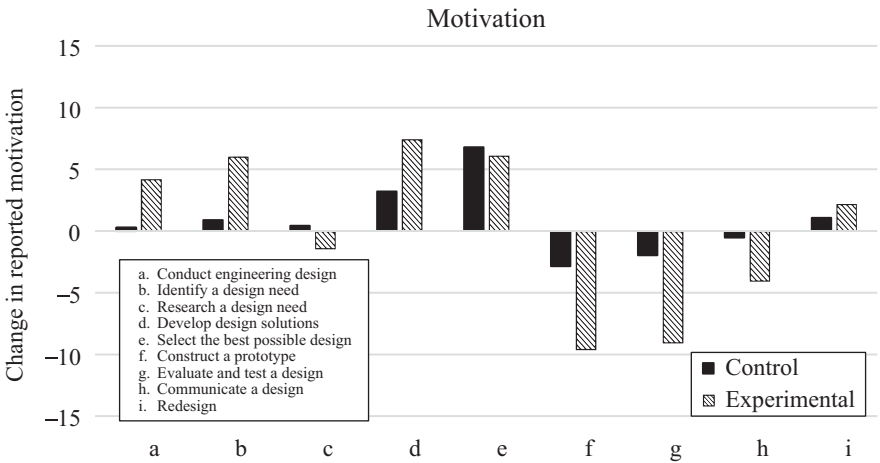
Fig. 15.2 Student self-reported change in **motivation** in the engineering design process following a semester using a "curriculum of creativity." (columns a-i correspond to Appendix 1 and the key above)
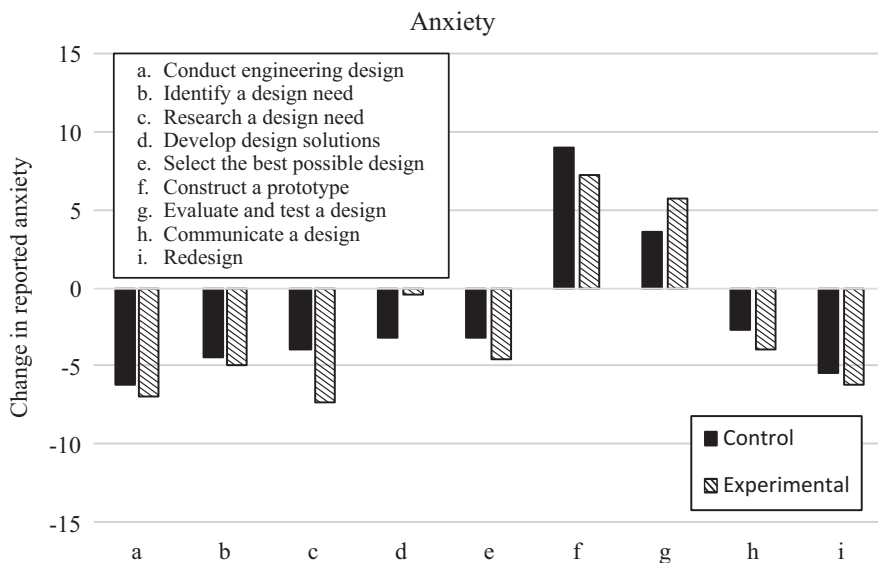
Fig. 15.3 Student self-reported change in **anxiety** in the engineering design process following a semester using a "curriculum of creativity." (columns a-i correspond to Appendix 1 and the key above)

15.3.2 Pilot #2

15.3.2.1 Project Goals

The goals of this project were to (1) refine and improve the way the creativity curriculum integrates with the normal content for BE4980; (2) administer pre-post self-efficacy surveys to ascertain whether the results are consistent with Pilot #1 and anecdotal observations; and (3) add a second evaluation step to determine if the quality of the ultimate capstone project outcomes differ among the test groups when measured by content experts.

15.3.2.2 Description of Instructional Activity

In Fall 2016, Ferris and Suzanne administered Pilot #2. Again, bioengineering faculty and external cooperators provided potential projects. As before, students enrolled in BE4980 were grouped into teams of 3–5 members based on project interest. Sixty-three (63) students were enrolled, providing a total of fifteen (15) student groups. Six (6) of the groups ($n = 25$ students) were assigned to the experimental group. The remaining nine (9) groups ($n = 38$ students) were assigned to the control group. Suzanne and Ferris along with two Theatre TAs, doctoral students Rachel Bauer and Jennie Pardoe, met once a week for an hour with the experimental group to provide instruction in creative thinking, which student teams applied directly to their capstone design projects.

15.3.2.3   Research Methods for Pilot #2

The research team evaluated the success of the program with a Pre-Post Control/ Experiment design measuring changes in students' design self-efficacy, using the same instrument as in Pilot #1. As in Pilot #1, the instrument was administered to all students during the second week of the course and repeated prior to finals week.

Each student group (experimental and control) was required to present their capstone project as a poster at the completion of the semester. Replicating typical evaluative conditions in the workplace, we relied upon independent content experts who evaluated the teams' poster presentations. Each project was evaluated by three content experts recruited from the Missouri Innovation Center, a pool of venture capitalists and serial entrepreneurs who had been recruited in previous semesters to provide informal evaluation of student projects. The experts used a standardized scoring rubric (Appendix 2) designed to semi-quantitatively assess students' originality, confidence, and motivation. Averaging the experts' scores determined the final grade for each project.

Students also wrote weekly reflective journals, a somewhat new concept for engineering students. Drawing upon John Dewey's theories (1933), reflection, often written, is included in instruction so that students who have participated in class activities think through, understand deeply, and integrate that lived experience with their past learning and sense of self (e.g., O'Connell et al. 2015). Indeed, Bonwell and Eisen in their influential ASHE-ERIC report, "Active learning; creating excitement in the classroom," define active learning as instruction that "involves students in doing things and thinking about the things they are doing" (1991, p. 2). For a discussion of the growing significance of journals as pedagogy in higher education, see Schmidt and Charney (this volume, Chap. 16). We did not include qualitative analysis of the journals as a research method in Pilot #2, but we learned so much from the journals we decided to include that type of analysis in our next pilot.

15.3.2.4   Results for Pilot #2

We determined the change in reported self-efficacy by subtracting the pre-semester self-reported values from the post-semester self-reported values. Thus, for confidence, motivation, and success a positive change indicated an area that improved throughout the semester, and a negative change in those areas indicated an area that did not improve; however, a negative change in anxiety indicated improvement and a positive change in anxiety indicated anxiety was not improved. Figures 15.4, 15.5, 15.6, 15.7 show the measured change in the four factors measured including: confidence, motivation, success, and anxiety.

Figure 15.8 reports the rubric scores provided by content experts. These scores show experts' evaluation of students' final design presentations on the basis of design solutions and student motivation and confidence (see questions in Appendix 2). For the rubric values in Fig. 15.8, higher scores indicate a design project presentation superior to the control group.
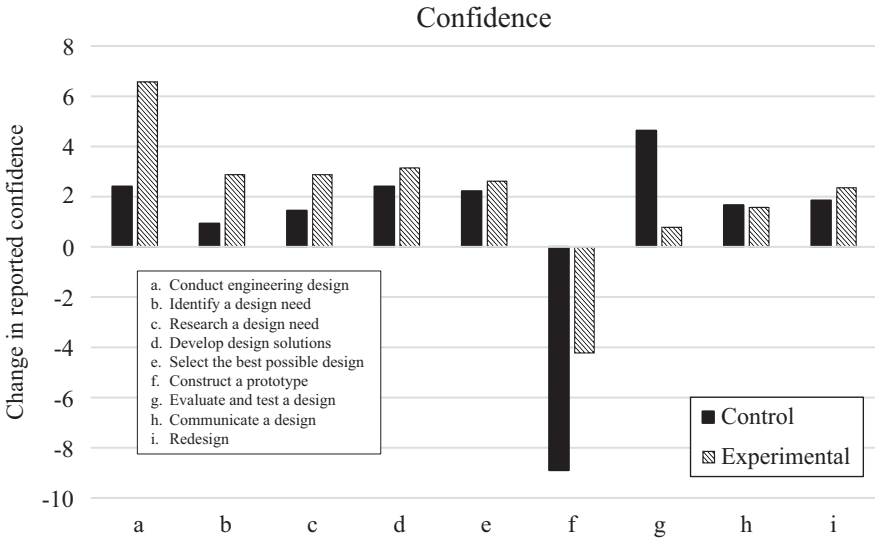
Fig. 15.4 Change in self-reported **confidence** for control and experimental groups. Column labels a-i correspond to survey questions in Appendix 1 and in the inset key
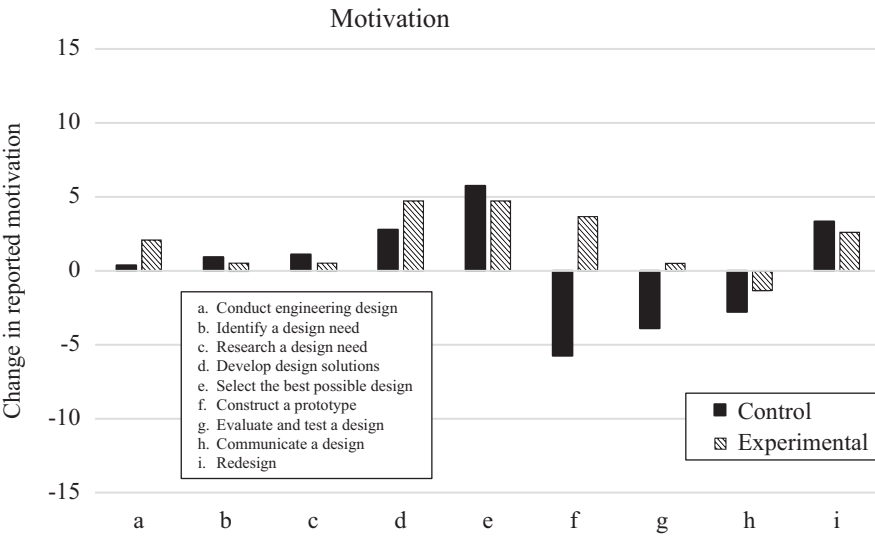
Fig. 15.5 Change in self-reported **motivation** for control and experimental groups. Column labels a-i correspond to survey questions in Appendix 1 and in the inset key
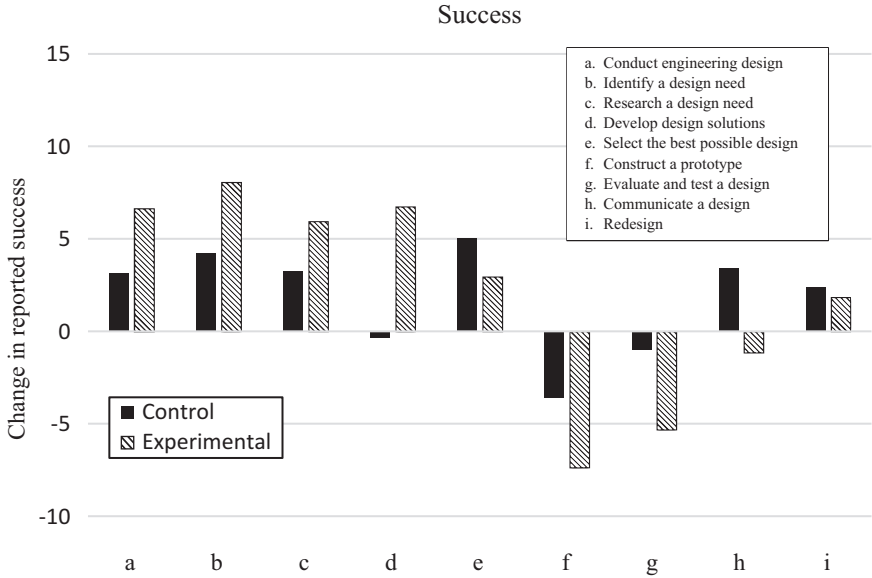
Fig. 15.6 Change in self-reported **success** for control and experimental groups. Column labels a-i correspond to survey questions in Appendix 1 and in the inset key
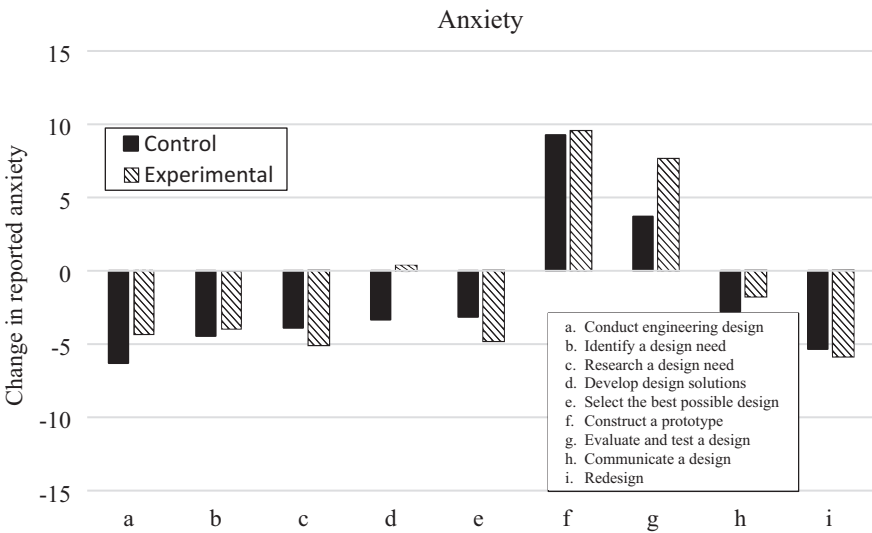

Fig. 15.7 Change in self-reported **anxiety** for control and experimental groups. Column labels a-i correspond to survey questions in Appendix 1 and in the inset key

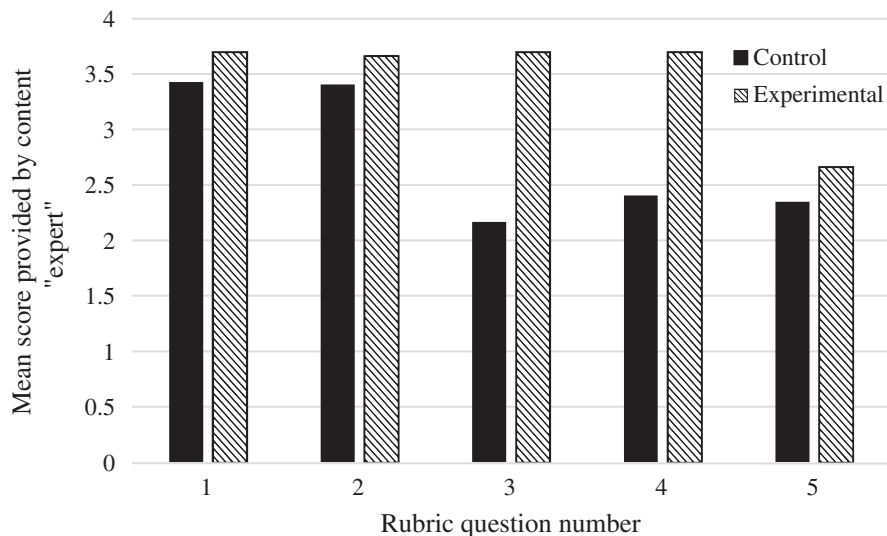**Fig. 15.8** Reported rubric scores provided by content experts following poster presentation. Rubric numbers correspond to the questions in Appendix 2

When we compared the self-efficacy data from Pilot Study #1 (Fall 2015) with the data from Pilot Study #2, we saw that students in the experimental group had an even larger increase in confidence in conducting engineering design in 2016 than in 2015 (Figs. 15.1 and 15.4 column a). Students in the experimental group also saw larger increases in self-reported motivation and success in conducting engineering design (Figs. 15.5 and 15.6 column a), while reporting a slightly larger decrease in anxiety in conducting engineering design (Fig. 15.7 column a, −6.9 experimental vs. -6.4 control) as compared to students in the control group.

15.3.2.5 Conclusions/Discussions of Pilot #2

Throughout this study, efforts were made to quantify the impact of implementing a curriculum of creativity in the bioengineering design capstone course. As noted earlier, it is difficult to measure creativity. Most of us know it when we see it, but it is not always easy to put a number on the amount of creativity in a person or demonstrated in a particular project. In this study, we have used different types of measures to allow us to evaluate the impact of the project. Additional discussion of what we learned/observed follows.

Impact of a Curriculum of Creativity on Student Design Confidence Confidence is important in the design process as it provides an indication of how willing someone is to try something. If someone is confident in their abilities, they are more willing to participate. Since all students had a comparable technical background

prior to participating in the capstone design class, we expected them to be similarly capable from a technical standpoint. However, students who participated in the creativity training self-reported more confidence in their own abilities than the control group, and thus would be more likely to try to use their skills. Therefore, creativity training may translate to more effective engineers in the workforce.

Impact of a Curriculum of Creativity on Student Design Motivation Motivation is a measure of excitement in a specific activity or project. If an engineer has the appropriate technical skills and is confident in using them, their design may still suffer if the engineer is not sufficiently motivated to use those skills. As an instructor, Ferris sees very intelligent students perform poorly in the classroom if they are not motivated. In this study, we observed increases in motivation from students who participated in the creativity curriculum. Increasing student motivation will develop students into more engaged professional engineers.

Impact of a Curriculum of Creativity on Student Design Success Success is a measure of how students feel about their ability to complete engineering design. Students in the experimental group reported increased belief in their ability to succeed in most aspects of engineering design.

Impact of a Curriculum of Creativity on Student Design Anxiety One of the most significant hurdles to student success in engineering design is anxiety. We see this in the classroom when we ask a question and no one offers an answer. It has been Ferris's experience that students often have an answer but are reluctant to offer one for fear of being wrong. He sees similar behavior in the design process where students seem reluctant to offer any solution, or offer a "boring" solution for fear of taking risks. In this study, we observed that participants in the creativity curriculum were less anxious than the control group.

Impact of a Curriculum of Creativity on Student Design Products As noted earlier, it is difficult to quantify creativity in the design process. In an effort to augment our evaluation, we asked content experts from industry to evaluate the final design products of students in capstone design, using the rubric in Appendix 2. The evaluators observed that students in the creativity groups were more confident in their presentations and more motivated to continue their project. The content experts also indicated that students who participated in the creativity curriculum developed somewhat superior design products.

15.4   Student Journals

Although our research methods did not include qualitative analysis of student journals, from reading those journals we did get an idea of what students were learning from the creativity sessions. We plan to include journals as research data in Pilot #3.

Representative excerpts from student journals are reproduced below to provide an idea of the kind of self-reflection creativity lessons might prompt (boldface added):

Student #1 So you want me to make goofy noises and motions in a group of serious, non-smiling engineering students? First thoughts? Ugh. I'm silly and very open at home and amongst people who really know me, but when it comes to strangers, classmates and coursework, it's all business. **This exercise showed me I'm afraid to step out and let go around people who aren't in my inner circle of trust. This exercise also showed me that there's no reason I can't be myself.** There's no rule I must be straight faced and closed off at all times. Everyone else seemed to be just as worried about the exercise as I. **There is no rule that states you cannot be an excellent engineer if you step outside the traditional engineering box.**

Student #2 During the last class period we did a number of activities. First, we were given a piece of paper with a grid of circles printed on it and were told to draw using the circles as part of the drawing. Even though everyone started with the same base template, drawings varied drastically between each person. To me this showed that everyone sees different things and has different ideas even when looking at the same template that is objectively just a grid of circles. **In terms of the group project this tells me that it's important to listen to everyone's ideas even when we think we already have the best solution, because it's possible someone has thought of something we hadn't even considered.**

Student #3 This assignment really highlights a major strength of tackling a project as a group. When given the same constraints, people will come up with drastically different solutions. **The strength of any group, be it a college senior project, a board of executives, or a legislative body, comes from its diversity.** People of different identities, interests, and experiences approach problems with a unique set of assumptions. **Considering those differences and giving special weight to those ideas that are unlike your own is key to innovation and to success in our group project.**

Student #4 During this week, I tried to use the concepts we discussed about active listening to pay more attention to the things people were discussing with me. **It was almost scary how much I find myself not actually absorbing half the information the person who is talking to me is actually saying.** Even when I was aware of it, I still found it hard to really listen to the person to understand what they were talking about. More often than not, I discovered that I would pay enough attention to the words they were saying to latch on to the general concept of what they were talking about, and then say something from my own experience that was somewhat related. Actually, I feel somewhat embarrassed to say how many times I caught myself interrupting a story or something similar that someone was telling me just to share an experience of mine that I thought fit into the subject matter we were talking about.

Student #5 After having a couple days to think about the points that stuck with me the most from this week's reading, I have concluded that the author's description of creativity as being a skill that is possessed by all, but requires regular exercises to fully acquire is the most significant point thus far. **I had never thought of creativity as being something that took practice and discipline to acquire, but instead fell into the category of people who believed it to be a quality that some possessed and some didn't.** I have seen the effects of thinking like this in my life. There are many times where I get frustrated when I cannot accomplish a task, and instead of sticking with it and trying to find different ways to improve upon what I currently have, I usually ditch the task at hand and blame it on myself for not being good enough. I think if anything, I hope that I can help to reverse some of this and apply this eight step method to something and see if it helps me to accomplish some of my goals.

While non-quantitative, the weekly reflective journals provided the instructors with as much or more insight into student learning of creativity as did the quantitative measures. Using journals, students were able and willing to offer information they would not typically share in a traditional engineering course.

One student began using his journals to communicate personal discoveries he was making in creativity class. He wrote about his own hang-ups, his difficulty connecting with other people, and how those problems influenced his group work as an engineer. He began the semester with a hostile glare, only speaking in class when working with his group (sometimes not even then). As the semester proceeded and he began to trust the instructor who was responding to his journal, he began to open up. The journal became a place for him to share experiences and reach out for help. He is a strong example of why journaling is so important, as the instructor was able to have a weekly written conversation about applying what we were learning to his work as an engineer. For us, student reflective journaling became an invaluable tool for rapid and thorough evaluation of student progress.

15.5 Overall Observations of Implementing a Curriculum of Creativity

During the course of this study, students who participated in the creativity curriculum demonstrated a positive response to the intervention. Gains were noted in areas including confidence, motivation, and success of conducting engineering design, while anxiety was reduced in several areas. Evaluation by external reviewers indicated students in the experimental group exhibited more confidence in the knowledge of their projects. Adding the student journal assignment showed us its potential value as a research tool, as well as a teaching strategy.

This study provided important data which we will use to further optimize teaching methods and delivery of content going forward. After seeing the outcomes of the first two pilots, the department was so enthusiastic they made creativity a required part of the bioengineering curriculum. Additional members joined our team, and we were awarded another Mizzou Advantage grant for Pilot #3. In Fall 2017, one of the two weekly 75-minute sessions for the capstone course is devoted to design principles, the other to a creativity studio. The creativity curriculum is deeply intertwined with the design principles being taught; so the topics of the Thursday studio reflect and augment the topics from Tuesday's lecture. With a total number of 80 enrolled and 15 teams (5 per team), we are instructing three studios of 25–30 students, with 1–2 instructors per studio. We are also conducting further research, including qualitative analysis, to more fully understand the impact of the interventions used.

As part of his research into creativity and engineering, Cropley discussed with students in the United States and Australia their opinions of their engineering programs. He found students concerned that they "are beginning the process of engineering education highly motivated and primed to be creative," but like students

Ferris encountered in his classes, lose their passion and curiosity when teaching methods are so boring students bring out their cellphones (2015a, p. 260). The poignant student comments Cropley quotes in his book include:

> Students forget why we are actually here—to learn to become engineers; to see a new and different perspective of the world, . . . we need to be creative in the classroom and creative with our dreams, not always accepting the status quo. . . . The curriculum in school should be fun and exciting and teach us to embrace the power that we hold to make a difference (2015a, p. 261)

We believe the theatre exercises we use in creativity sessions revitalize the learning process for students, stimulating them to probe within themselves to rediscover their own creativity and motivating them to re-engage with their purpose as engineers. Besides, theatre exercises are engaging and fun. One of Suzanne's Honors College students who started the semester fixated on grades told her after the creativity class ended, "What you taught me was how to enjoy learning" (personal communication 2015).

Appendix 1. Pre-Post Survey Used to Measure Self-Efficacy

Please answer all of the following questions fully by selecting the answer that best represents your beliefs and judgements of your **current** abilities. Answer each question in terms of what you know today about the given task.

Rate your ability by recording a number from 0 to 100. (0 = low; 50 = moderate; 100 = high)

1. Rate your degree of **confidence** (i.e., belief in your current ability) to perform the following:

(a) Conduct engineering design_____
(b) Identify a design need_____
(c) Research a design need_____
(d) Develop design solutions_____
(e) Select the best possible design_____
(f) Construct a prototype_____
(g) Evaluate and test a design_____
(h) Communicate a design_____
(i) Redesign_____

2. Rate how **motivated** you would be to perform the following tasks:

(a) Conduct engineering design_____
(b) Identify a design need_____
(c) Research a design need_____
(d) Develop design solutions_____
(e) Select the best possible design_____

(f) Construct a prototype_____
(g) Evaluate and test a design_____
(h) Communicate a design_____
(i) Redesign_____

3. Rate how **successful** you would be in performing the following tasks:

(a) Conduct engineering design_____
(b) Identify a design need_____
(c) Research a design need_____
(d) Develop design solutions_____
(e) Select the best possible design_____
(f) Construct a prototype_____
(g) Evaluate and test a design_____
(h) Communicate a design_____
(i) Redesign_____

4. Rate your degree of **anxiety** (i.e., how apprehensive you would be) to perform
    the following:

(a) Conduct engineering design_____
(b) Identify a design need_____
(c) Research a design need_____
(d) Develop design solutions_____
(e) Select the best possible design_____
(f) Construct a prototype_____
(g) Evaluate and test a design_____
(h) Communicate a design_____
(i) Redesign_____

Appendix 2. Content "Expert" Poster Evaluation Rubric

BE4990 Final Poster and Group Evaluation

Please evaluate the poster content as well as the responses from the team based
on a scale from 1–5 where 5 is the best and 1 needs improvement.

1. Originality of the solution (i.e., is this something [or derivative of something]
    you have seen before?).

                                                                                                    _____

2. How well does the solution meet the stated design need?.

                                                                                                    _____

3. How confident are the presenters in their presentation?.

                                                                                                    _____

4. How confident are the presenters in responding to your questions?.

$\rule{2cm}{0.4pt}$

5. Rate the motivation of the team in continuing to pursue a solution and/or improvement.

$\rule{2cm}{0.4pt}$

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Part VI
Assessment

Chapter 16
Assessing Creativity as a Student Learning Outcome in Theatre Education

Marcelo Schmidt and Mark Charney

Abstract Creativity is an important and widely accepted learning goal of theatre programs in higher education. Yet it appears that creativity and the act of assessing creativity as a learning outcome have received minimal attention by the community of practice and in theatre education scholarship. In this chapter we address this gap by describing a model for assessing creativity as a student learning outcome that we implemented in a theatre performance lab. First, we differentiate between the act of measuring creativity and that of assessing it for the purpose of programmatic improvement and enhanced student learning. Second, we describe the importance of the environment and the impact of exemplars on student learning and development of creativity. Last, we describe how we use the Creative Achievement Questionnaire, reflective journals, and rubrics to assess creativity; we discuss how collectively, the results of these assessments can be used to guide curriculum, improve learning outcomes, and help students of theatre reach their creative potential.

16.1 Introduction: Assessment of Creativity in Theatre Education

Nearly three years ago, we embarked on a journey to develop a comprehensive and effective assessment model for the School of Theatre and Dance at Texas Tech University. The motivation for such a task was to improve our program's teaching practices, identify when and where to modify the curriculum, and, ultimately, to ensure that our students were receiving the highest quality of education. To this end, we took a two-part approach. First, we researched scientific literature pertinent to

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educational assessment, assessment in the performance arts, and, more specifically, the assessment of student learning in theatre. Second, we conducted an extensive examination of exemplary academic theatre programs across the nation, reading their mission statements, program goals, and gleaning their practices for assessing student learning outcomes. Through our research, we learned that there are an abundance of research-based strategies and mechanisms for assessing learning outcomes pertinent to knowledge acquisition and skill development. Yet we also learned that literature and models dedicated to assessing the learning outcome of creativity in theatre education are nearly nonexistent. This discovery prompted us into further research, exploration, and eventually, the development of our own assessment model. The model we developed triangulates data from various sources, including a creativity self-reported measure, reflective journals, and a scoring rubric.

In this chapter, we share the theoretical underpinnings that drove the development of our creativity assessment model and elaborate on what we have learned from implementing this model in our theatre program. We hope our narrative will lead to a clearer understanding of assessment of creativity as a learning outcome in theatre education.

16.2 Creativity

As a coveted twenty-first century skill, creativity is receiving significant attention from scholars in various disciplines, including the arts. Despite the focalized attention the construct of creativity has commanded, it seems to lack a clear and common definition. Some scholars have attributed the lack of consensus for a definition by suggesting that creativity is an *elusive* construct (e.g., Ford and Harris 1992; Newton and Donkin 2011). The elusiveness and inherent challenges of defining creativity excuse some scholars from attempting to define creativity or, as Plucker et al. (2004) suggest, to define it in "only the most tenuous terms" (p. 87). Yet, as Plucker et al. (2004) recommend, if scientists are to advance knowledge on creativity, the term must be defined within the context in which it is being used. Therefore, in this chapter, we proffer a definition that draws from the expertise of several creativity theorists and is applicable within social sciences and educational settings. We assume that creativity is the generation of a product or behavior that is characterized by originality (Hennessey and Amabile 2010), is germane to a specific domain (Carson et al. 2005), and is valued and useful within a specified context (Martindale 1989).

Because we are concerned with assessing creativity as a student learning outcome within educational settings, we also categorize the various manifestations of creative production that are observable in the classroom. We accomplish this task utilizing the Four C model of creativity (Beghetto and Kaufman 2007a; Kaufman and Beghetto 2009). The Four C model is a taxonomy that qualifies and classifies different levels of creative products and behaviors. The model has been found useful in educational settings as teachers who understand varying degrees of creativity can target feedback and thus promote students' creative development (Beghetto 2013).

The Four C model classifies creativity into mini-c, little-c, Pro-c, and Big-C. Mini-c, originally proposed by Beghetto and Kaufman (2007b), is considered as internalized creativity that occurs within personal learning experiences. Mini-c is akin to the concept of *personal creativity* proffered by Runco (2004) and may be manifested by an individual's "interpretive capacities, discretion, and intentions" (Runco 2004, p. 11). To an extent, through mini-c one may recognize the non-tangible forms of creativity that serve as outlets into more concrete forms of creativity (Beghetto and Kaufman 2015). In theatre, students might express mini-c creativity in their personal battles to embrace contradictions, take risks, or conceptualize novel solutions to challenges.

Following mini-c in the four C continuum is little-c creativity, which is closely related to what Richards (2007) refers to as "everyday creativity" (p. 25). Little-c may emerge among students of theatre as everyday activities such as developing a script, designing a set, and/or identifying the appropriate lighting to accompany a particular mood in a play. Likely, these manifestations of student creativity will not achieve a national reputation. However, little-c creativity may evolve into professional level creativity.

Kaufman and Beghetto (2009) refer to professional expertise in creative areas as Pro-c creativity. Pro-c exceeds the conventions of little-c and aspires to attain Big-C status. Fewer students in theatre classes will exhibit Pro-c qualities, as professional expertise requires a significant amount of time to develop (Kaufman and Beghetto 2009). However, failing to recognize Pro-c creativity in students may jeopardize their creative development, hindering their potential for ever attaining Big-C creativity.

Last, Big-C creativity encompasses works or acts that attain universal recognition and endure the test of time. For example, Shakespeare, Arthur Miller, and Lorraine Hansberry are individuals who have attained Big C creativity in theatre. Big C may never materialize in educational settings as these are restricted by time and space; however, it is our responsibility as educators to recognize students' creative potential and to nurture this potential into its highest manifestations.

16.2.1 Differentiating Evaluation and Measurement from Assessment of Student Learning

Before delving into assessment of creativity as a learning outcome, we need to clarify and define the concept and process of assessment of student learning. The term assessment, much like the term creativity, suffers the perils of ambiguity. A large number of creativity scholars seem to perpetuate this ambiguity by using the term assessment interchangeably with the terms measurement and evaluation. Consider, as examples, these statements from published studies on creativity assessment: Plucker and Makel (2010, p. 49) state that "few topics within the study of creativity and innovation incite as much passion as assessment or measurement";

Sternberg (2012, p. 8) explains that "assessing creativity means evaluating students…" as they perform various creative endeavors; while Baer and McKool (2009, p. 3) argue that Amabile's (1982) consensual assessment technique provides the best "measure" of creativity by considering the "combined assessment of experts in that field". In each of these examples, the authors refer to a single measurement of creativity that is independent from the learning context and which, more aptly, agrees with the definition of evaluation or measurement, and not with assessment of student learning.

Measurement and evaluation are differentiated from the act of assessment of student learning in several ways. For one, measurement and evaluation are performed against a set of standards and in a single measurement (Starr 2014). Also, measurement and evaluation are narrow in scope as they typically intend to appraise the quality of a student's product or performance (Baehr 2010). Finally, measurement and evaluation are mostly performed independent of the learning context (Brookhart 2003). In contrast, assessment of student learning is a systematic process of collecting and examining evidence of learning. The results of assessment of student learning can be used to motivate and enhance a student's desire to learn and strive academically (Stiggins 2005). Brookhart (2003) adds that assessment of student learning provides a context for a specific practice which is primarily contingent on the educational environment.

16.2.2   The Practice of Assessment

Assessment of student learning has become a central practice in higher education. Under ideal circumstances, assessment of student learning is motivated by an institution's need to ascertain that students are learning and being prepared to become educated, competent, efficient members of society. However, and often, institutions engage in assessment of student learning simply to comply with requirements of accreditors and regulatory bodies (Maki 2002).

There are important differences in the practice of assessment which should be clarified; namely, when and where assessment takes place, and for what purpose assessment is being conducted. These distinctions are germane to whether the assessment is summative or formative. Summative assessment, often considered as assessment *of* student learning, is the practice of understanding how a program has influenced a student's learning experience (Mertler 2001). Summative assessment usually takes place at the culmination of a learning term and is useful to elucidate how much a student has learned and to inform programmatic needs (Stiggins et al. 2004). A limitation of summative assessment is that findings that prompt program improvement will be beneficial to future students and not those from whom the data has been collected. On the other hand, formative assessment, or assessment *for* learning, occurs daily, involves communication between teachers and students regarding various learning activities, and is intended to provide feedback that will continually enhance a student's learning experience (Brookhart 2007). Formative

assessment is often favored over summative assessment given the immediate impact it has on students.

16.2.3   The Measurement of Creativity

When we fail to assess creativity, we convey to students that creative endeavors are not valuable (Beghetto 2010). Yet while most theatre programs in higher education consider creativity to be central to their curriculum, little evidence suggests that these programs engage in assessing creativity as a learning goal.

Several articles and book chapters methodically review, describe, and examine the applicability of instruments and techniques to measure creativity in educational settings (e.g., Kaufman et al. 2008; Plucker and Makel 2010; Long and Plucker 2015). These reviews espouse the benefits of measuring creativity and conclude that, whether it be divergent thinking tests, which test an individual's ability to produce ideas when prompted by words or figures (e.g., Torrance Test of Creative Thinking; Torrance 1966), ratings of creativity by expert panels (e.g., the consensual assessment techniques; Amabile 1982), or the use of creativity inventories (e.g., The Creativity Checklist; Proctor and Burnett 2004) they do indeed measure creativity. Yet while the results of these measurements of creativity yield objective measures for determining a student's creative ability or potential, they fall short of being useful for guiding instruction, improving programs and enhancing learning. In fact, as Freeman (2006) asserts, "interpretation and judgment" (p. 96) are most adequate for assessing creativity in the arts, and not simply objectively quantifiable measures. That is, when a measurement of creativity is taken independently and isolated from other measures, it simply provides a measure of creativity rather than a holistic assessment of creativity as a learning outcome.

16.3   Where We Assess Creativity as a Student Learning Outcome

During the past three years, we have developed and piloted a model to assess creativity in theatre as a student learning outcome. We implemented this assessment model in WildWind Performance Lab (WWPL), a summer-long theatre performance lab housed in the School of Theatre and Dance at Texas Tech University. In this learning lab, students are exposed to exemplary directors of theatre, dramaturgs, playwrights, and designers from various institutions from around the nation and the professional arena. The pedagogical approach of the lab promotes non-traditional, process-over-outcome oriented learning where students are challenged to hone their theatrical skills as well as nourish their creativity potential.

In the following sections, we elaborate on the environment, the role of exemplars, and the three data sources that we draw from to assess creativity. We also describe what we have learned from assessing our students, and discuss successful observations and challenges that have emerged from implementing this assessment model.

16.3.1 Creative Environments

Performance labs are similar to working environments in the sense that they are hands on, collaborative endeavors, characterized by project oriented teamwork. Considering these shared traits, we used recommendations from research on social and group settings as a model for our performance lab. Amabile, a leading expert on creativity in work and social environments, suggests that creativity thrives in climates that promote the development of knowledge, creative thinking skills, and intrinsic motivation (Amabile 1982; Amabile et al. 1996). The influence of these environmental characteristics on creativity have been studied, albeit not extensively, in theatre educational settings. Findings from a recent study conducted by Toivanen et al. (2016), indicate that, among other factors, the presence of adequate mentors; collaborative, student-centered learning experiences; and play are important contributors to the development of creativity in theatre education. Belluigi (2013) points to the relational aspects of "solidarity, hospitality, safety, and a redistribution of power" (p. 13) as conducive to developing creativity in arts education students. Instructors are largely responsible for molding the educational contexts and thereby possess the capacity to create environments that promote or diminish student creativity (Beghetto and Plucker 2016).

16.3.2 The Role of Exemplars

There is a clear association between emulation of creative models and a learner's creative ability. This association is exemplified by a study conducted by Ishibashi and Okada (2004) who concluded that students exposed to creative exemplars consistently produce more creative artwork than those not exposed to models. Similarly, Root-Bernstein and Root-Bernstein (2017) praised the creativity of science students who engaged in "re-creative copying" (p. 161), a method by which a novice creates a product by following the steps charted by a model.

A variant of emulation is adaptation. Adaptations of works by exemplars also appear to contribute to a learner's creative potential. This idea, espoused by McKinnon (2011), implies that creativity is born from adaptation of the existing works, rather than originality. Through adaptation-based creativity, students learn that creativity is a universal attribute and that even revered creative models (e.g.,

Shakespeare) have, to an extent, relied on the creative works of others (McKinnon 2011).

WWPL strives to expose students to exemplar mentors from various areas of theatre education and the performing arts. These exemplars serve as sources from whom to model, emulate, and adapt creative endeavors and to draw inspiration for autonomous and independent learning.

16.4 The Assessment Model

Assessment of student learning is most effective when several sources of data are evaluated (Borden and Zak Owens 2001). In following this recommendation, in WWPL we triangulate data from (a) an objective and quantitative measurement of creative outputs to assess creative achievement and ability, (b) qualitative observations by instructors as content experts, and (c) the student's self-reflection regarding learning and personal creativity. Table 16.1 summarizes the three data sources utilized in the WWPL assessment model.

16.4.1 The Creative Achievement Questionnaire

One important objective in WWPL is to nurture student creativity to the extent that it gains local, regional, and national distinction. While it is feasible for instructors to identify a select group of creative students and subjectively assess their potential for recognition in creativity, gauging the capacity of all students is significantly more challenging. To mitigate the challenge of assessing all students, we sought an instrument that could quickly and objectively measure the creative potential of all our students. To this end, we adopted the Creative Achievement Questionnaire (CAQ; Carson et al. 2005).

Several instruments measure creativity through self-reports of creative behaviors, products, and accomplishments. A primary reason for utilizing these instru-

Table 16.1 Summary of the WWPL assessment model

Instrument	Type of learning	Creativity Measured	Type of assessment
Creative Achievement Questionnaire	Domain specific creative output and potential	little-c, Pro-c	Formative, summative
Student journals	Reflective learning	little-c, mini-c	Formative
Creative thinking rubric	Holistic	little-c	Formative, summative

ments is to capture an individual's frequency of creative production and the general, or domain specific nature of such accomplishments. One limitation associated with self-report inventories, however, is their inability to capture important dimensions, such as the quality and scope of impact of the creative product. In consideration of this shortcoming, Carson et al. (2005) developed the CAQ. The CAQ is a psychometrically sound, valid and reliable, domain specific instrument (Carson et al. 2005; Silvia et al. 2009; Wang et al. 2014) that measures creative achievement. Also, the CAQ has been found to have convergent validity or to be theoretically related to other creativity measures, such as divergent thinking and personality scales (Carson et al. 2005). The CAQ extends beyond other creativity self-report inventories by capturing indicators of public approbation, weighing creative output by local, regional, or national impact, and by assigning greater value to creative output that is attainable only by few and distinguished individuals (Carson et al. 2005). Finally, the CAQ is interpretable within two main creative domains, arts and science. The arts domain of the CAQ includes the areas of theatre and film, music, humor, arts, and creative writing. Within these areas of creative expression, response items are distributed on a seven-level incrementally challenging continuum. For example, within the *theatre and film* domain, a low-level item simply acknowledges a respondents' participation in theatre, while at the highest level, an item captures respondents' creative outputs that have attained national or worldwide recognition.

16.4.2   *How We Use the CAQ and What We Have Learned from Using this Instrument*

We consider the CAQ to be the first data source in our assessment model. We administer the arts domain of the CAQ at the beginning of the month-long performance lab. This practice provides our instructors with an early understanding of the degree of creative achievement for each student prior to imparting instruction.

The CAQ is effective as a quantitative measure of students' creative achievement. As Carson et al. (2005) indicate, the CAQ is quick to administer and easy to score. The CAQ also provides our program with information about creativity at the individual and group levels. At the individual level, results from the CAQ allow instructors to target interventions that foster creativity in students who may have had limited opportunities to express themselves creatively, while reinforcing and refining the skills of those who are at the cusp of major creative endeavors. At the group level, the CAQ provides a measure of collective creative achievement which we use to assess how different cohorts perform over time. Additionally, the CAQ affords the flexibility to report an overall creativity score, a score for a particular domain (i.e., arts, science), or simply, for a particular element of a domain (e.g., dance, theatre).

Fig. 16.1 Creative achievement in theatre over time
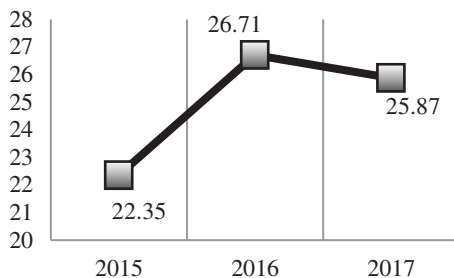
In Fig. 16.1, we present the average score for the element of theatre for three different WWPL cohorts over a period of three years. From the rising trend of creative achievement scores of students enrolled in WWPL, we can infer that our theatre program is attracting students of a higher creative ability or affording students more opportunities to express themselves creatively. These results warrant further examination into our recruitment and instructional practices to ascertain which, if not both, are contributing to higher creative achievement by our students.

There are two areas in which the CAQ presents limitations within our assessment model. First, the CAQ is intended for cross sectional use; that is, it measures creative achievement at a specific time point. Because it does not capture the frequency of creative behaviors, products or recognitions, the instrument precludes the possibility of accounting for individual student growth over time. However, as is expected, students engaged in a performance lab are expected to acquire new competencies and develop new skills through learning and experiences. This development, in turn, should augment students' creative achievement and with proper support, their creative potential should flourish and evolve. A second limitation of the CAQ is that the area of *theatre and film* is restricted to assessing creativity of students who are either actors or directors. This limitation prevents measuring the creative achievement of students who are pursuing certain specialties within theatre education, such as design, lighting, and theatre administration.

16.4.3   Reflective Journals

Reflective journals constitute the second source of data in our creativity assessment model. Reflective journals have gained prominence as tools for assessment of learning during the last decade. The increase in use has been aided by advances in technology (i.e., online student portfolios), yet more importantly by the recognition that journaling activities empower students to think critically and act upon their learning rather than simply rely on the valuation of others. Lewis (2011) states that students who embrace journaling learn content knowledge and grow as individuals through experimentation, exploration of their aesthetic qualities, and by creating personally meaningful learning experiences.

Despite a growing trend to use reflective journals for learning in higher education, there is not an extensive body of research examining the efficacy of journaling for assessing student creativity. At least one study that we found suggests that faculty members in the arts perceive journaling to be among instructional practices that support students' creative development (Marquis and Henderson 2015).

When the learning goal is to harness creative potential or develop creative products, journaling helps students develop awareness of their agency and ownership (Lehtonen et al. 2016). Reflective journaling also serves as a springboard to new learning according to Boud (2001), who asserts that when students journal about their creative endeavors, they stimulate further creativity by better understanding the self. Lewis (2011) exemplifies this deeper understanding of self by referencing a student who extols the value of journaling about personal creativity in two sentences: "I have learned a lot about myself while creating my journal. I have learned that I am more creative and imaginative than I originally thought" (Lewis 2011, p. 56).

Journaling also encourages learning by promoting dialogic interaction between the student and the instructor. This dialogue is the essence of formative assessment as it is utilized as a platform for constructive feedback and to motivate student learning. Chappell and Craft (2011) refer to this dialogue as "*learning conversations*" (p. 3). In learning conversations, all parties agree upon the importance of attaining mutual respect, understanding, and a shared vision for learning goals (Timperley 2001). These conversations may lead to important discoveries about nontangible creativity or creativity that Beghetto and Kaufman (2007a, b) refer to as mini-c. Arguably, journaling is an ideal mechanism for capturing "personally meaningful interpretation of experience" (Kaufman and Beghetto 2009, p. 3).

16.4.4   How We Use Journals for Assessment and What We Have Learned from their Use

Students may journal daily, but no less than once or twice weekly during WWPL. We do not *prescribe* journaling, against commonly accepted recommendations (e.g., Dunlap 2006), by telling students what or how long they should write. Our approach to journaling assignments reflects the views of several scholars (e.g., Barron and Harrington 1981; Sheldon 1995) who suggest that prescription hinders autonomy and interferes with students' creative potential. We also recommend that instructors refrain from grading journals and instead focus on student narratives as a means to motivate dialogue that inspires students into detailed descriptions of their learning challenges, successes, strengths or weaknesses.

By following these guidelines, we have learned that students often write extensively when inspired. The majority reflect on what they are learning and where they believe this learning will lead them. A few students reflect on their failures or shortcomings, which we embrace as opportunities to challenge and redirect them into

new learning. Above all, we consider the practice of journaling to be an excellent exercise for students to reflect upon and self-assess their creative abilities and potential. This self-assessment allows the student to take on the role of learner and assessor simultaneously, tasked with determining if learning is taking place or not. This metacognitive experience is congruent with twenty-first century expectations of student learning (e.g., Lai and Viering 2012; Shepard 2000).

Journal entries are analyzed through directed content analysis following the recommendations outlined by Hsieh and Shannon (2005). This analytic approach helps identify narrative that agrees with the categories outlined in the VALUE rubrics (discussed below) which include: (a) acquiring competencies, (b) embracing contradictions, (c) taking risks, (d) solving problems, and (e) innovative thinking. We have found that students readily articulate their challenges with taking risks and embracing contradictions. They are less inclined to journal about acquiring competencies; expressing innovative ideas; or to connect, synthesize, and transform new knowledge in their journals.

16.4.5 Rubrics

Rubrics are versatile tools developed for grading and for assessing student learning. Yet while rubrics aid in the process of assessing student learning, it is still the responsibility of an instructor to exhibit "sensitivity" (Schonmann 1997, p. 11) and to possess pertinent expertise to measure a student's creative attainment.

Rubrics can be used for both formative and summative assessment. In the case of formative assessment, a rubric permits instructors to assess individual components of student learning and provide direction and feedback (Rhodes 2010). A review of scoring rubrics for formative assessment conducted by Panadero and Jonsson (2013) found that rubrics influence student learning in a positive manner by outlining what the learning and performance expectations are and by facilitating the feedback process, which in turn, improves student self-efficacy and self-regulatory skills. Summative assessment rubrics, also considered holistic rubrics, are used to assess the overall performance or level of proficiency attained by a student at the end of a term (Luft 1999; Mertler 2001).

We have found the VALUE rubric for assessing *creative thinking*, developed by the Association of American Colleges & Universities (AACU; AACU n.d.), to meet the requirements of our assessment model. The Creative Thinking VALUE Rubric includes learning areas related to acquiring competencies, taking risks, solving problems, embracing contradictions, innovative thinking, and connecting, synthesizing, and transforming knowledge (AACU n.d.). The rubric also provides stated criteria by which to measure a student's attainment of learning. We note that AACU grants permission for users of the rubrics to adapt and modify them according to the needs of the assessor (AACU n.d.). For our creativity assessment model, we have changed the grading parameters proposed by AACU from *benchmark*, *milestones*, and *capstone* (scored 1–4) to a gradation of *unsatisfactory*, *emerging*, *satisfactory*,

proficient, and *exemplary* (scored 1–5). The adapted version of the Creativity Thinking VALUE Rubric appears as Appendix A. Our gradation scale certainly begs the question of whether creativity can be judged as performing in an unsatisfactory or emerging manner. We argue that, indeed, it is possible to qualify emerging and unsatisfactory performances. For example, a student with preconceived notions on a topic may be unwilling to take a risk or experiment, thereby hindering his or her creative potential. Unwillingness or inability to challenge assumptions causes unsatisfactory performance.

16.4.5.1   How We Use Rubrics and What We Have Learned from Using Assessment Rubrics

We use the VALUE rubrics to attain a holistic measure of student creativity. The assessment is typically performed by instructors at the end of the performance lab term. We analyze rubric scores of undergraduate and graduate students separately, mindful of the different developmental learning stages of each group. The focus of our analysis is to elucidate patterns and trends in learning rather than to identify statistically significant differences in performance by individuals and groups.

When we examine patterns of students' creative performance, we find that, on average, students are performing at a satisfactory level. Another important finding that has emerged from scoring our rubrics is that, while graduate and undergraduate students score relatively similarly across most learning areas, graduate students rate higher in terms of *acquiring competencies* that lead to creative products or behaviors, yet relative to undergraduate students, lower in the area of *taking risks*. The question then is whether some aspects of creativity decline over time, as has been suggested by some scholars (e.g., McCrae 1987), and contested by others (e.g., Lindauer 2003), or if older students adopt a more cautious approach to some aspects of creative endeavors. We expect to attain new knowledge on these issues as we continue to assess students, and as our data increases, matures and offers more reliable estimates of student learning.

16.5   Conclusion

We conclude that assessment of creativity as a student learning outcome can be accomplished in a reliable manner when several measures of creativity and creative endeavors converge. Pursuing the practice of assessment demonstrates our commitment to affording our students the highest quality of education possible.

Considering the importance of assessment, we are not sure why the study of assessment of creativity in theatre has received scant attention or why few models are available for research or practice. We wonder if perhaps those responsible for conducting assessment are discouraged by the admonition that their practice is an "extremely" arduous task (Baer and McKool 2009, p. 2). Or is it the misconception

that somehow assessment will interfere with the creative process, a fear that has been examined and refuted emphatically (Beghetto 2005)? Perhaps scant research of assessing creativity as a student learning outcome results from the false belief that assessing creativity is redundant as Bailin (2011) suggests, that because the very nature of theatre is creative, those who participate in theatre are by virtue, creative.

Whatever the case, we are reminded that, in accordance with twenty-first century higher education practices, if *creativity* is central to our program's learning outcomes, it must then be assessed. This recommendation appears to respond to calls for accountability in teaching, a task that is often met with an aversive reaction. We do not dismiss the tediousness of assessing student learning entirely; however, more importantly we encourage the use of assessment for the sake of student learning and program improvement.

Finally, we encourage colleagues in theatre education to join our efforts in the study and assessment of creativity. Not only is defining student creativity important in the arts (especially theatre), but it also reduces the mystery of how students grow and advance. Those in the arts too often dismiss the idea of determining parameters of success, arguing that creativity is almost an ephemeral, indecipherable act. We believe that if, as a community of practice, we can recognize, develop, and define best practices, then our students will fulfill their creative potential and thrive both personally and professionally.

Appendix A

A score of 1 should be assigned to a student who fails to meet criteria expected of the category *Emerging*

	Exemplar (5)	Proficient (4)	Satisfactory (3)	Emerging (2)
Acquiring competencies	Reflect: Evaluates creative process and product using domain-appropriate criteria.	Create: Creates an entirely new object, solution or idea that is appropriate to the domain.	Adapt: Successfully adapts an appropriate exemplar to his/ her own specifications.	Model: Successfully reproduces an appropriate exemplar.
Taking risks	Actively seeks out and follows through on untested and potentially risky directions or approaches to the assignment in the final product.	Incorporates new directions or approaches to the assignment in the final product.	Considers new directions or approaches without going beyond the guidelines of the assignment.	Stays strictly within the guidelines of the assignment.

Solving problems	Not only develops a logical, consistent plan to solve problem, but recognizes consequences of solution and can articulate reason for choosing solution.	Having selected from among alternatives, develops a logical, consistent plan to solve the problem.	Considers and rejects less acceptable approaches to solving problem.	Only a single approach is considered and is used to solve the problem.
Embracing contradictions	Integrates alternate, divergent, or contradictory perspectives or ideas fully.	Incorporates alternate, divergent, or contradictory perspectives or ideas in an exploratory way.	Includes (recognizes the value of) alternate, divergent, or contradictory perspectives or ideas in a small way.	Acknowledges (mentions in passing) alternate, divergent, or contradictory perspectives or ideas.
Innovative thinking	Extends a novel or unique idea, question, format, or product to create new knowledge or knowledge that crosses boundaries.	Creates a novel or unique idea, question, format, or product.	Experiments with creating a novel or unique idea, question, format, or product.	Reformulates a collection of available ideas.
Connecting, synthesizing, transforming	Transforms ideas or solutions into entirely new forms.	Synthesizes ideas or solutions into a coherent whole.	Connects ideas or solutions in novel ways.	Recognizes existing connections among ideas or solutions.

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