PERFORMANCE FOR LEARNING: HOW EMOTIONS PLAY A PART

Dissertation

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

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The Ohio State University 2008

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ABSTRACT

Over the last twenty years, museums, zoos and aquaria have been developing live theatre programs to present performances to their visitors. In general, these performances are presented by professional actors, the scripts are written by playwrights, and the staging is done with a director. The content of these performances is generated from the institutional mission of the home museum, zoo or aquarium, and is usually educational. This genre of performance is called museum theatre. While the practice of museum theatre has proliferated, fewer attempts have been made to research its effects. Positive response has been documented from visitors who have seen such performances, but only a few studies have gone beyond this to understand the underlying nature of that response.

This study explored the nature of spectator response to museum theatre performances. Several different museum theatre performances were used in two museum sites in order to gather responses from museum visitors of all ages who became spectators. Through pre- and post-show surveys, observations, focus group interviews, and follow-up interviews 3-5 months later, spectator responses were analyzed using

transactional theory as a lens to reveal what participants selected for attention and how they constructed meaning from their museum theatre experience.

The data showed that participants brought a variety of experiences and understandings to these performances. The sample of visitors who participated in this study represented a wide range of ages. This was evident in the variety of experiences they brought to their meaning-making of the performances, which inspired a plethora of different interpretations of the performances. Participants in this study were typically able to recall details of the performances they saw three to five months later.

A primary idea that emerged in the data that showed aesthetic response to museum theatre was the centrality of empathy. The human dimension, the interaction between spectator and actor, was found to be of central importance in engaging spectators to museum theatre.

One of the strengths of this study was in the variety of instruments used, which allowed participants to construct and clarify their responses in varying ways and at different intervals. A consistency in the data painted a detailed picture of the museum theatre event as a site of activation for participants' affective and cognitive processing, which led to strong recall, comprehension and learning.

Dedicated to the women in my life:

My sister, whose love and support have been essential and with whom I share in this achievement

My daughter, who is my inspiration and whose patience has been appreciated

My mother, whose memory has sustained me

ACKNOWLEDGMENTS

I want to thank my advisor, Dr. Christine Warner for her guidance and for her early suggestion to look at Transactional Theory, which influenced and shaped my thinking greatly. I appreciate her many hours of reading and suggestions during the actual writing process. Our meetings were always constructive for my writing process, but I also appreciated her interest and support about all the facets of my life during this time.

I wish to thank Dr. Brian Edmiston for his consistent support through my entire doctoral study, especially as co-chair of my candidacy committee and as my supervising teacher. His influence has especially broadened my thinking about drama and teaching.

I wish to thank Tony Jackson for his incredible belief in my study and my abilities. He gave me confidence to believe I could accomplish this daunting task. His encouragement and generosity have been indispensable, his point of view and feedback essential

My gratitude to Dr. Ian Wilkinson for his willingness to step in when I needed him and provide his contributions in general, and his knowledge of transactional theory in particular.

My thanks to the staff of the Kentucky Historical Society and especially Greg Hardison, and the staff of the Museum of Science, Boston, especially Dan Dowling and Margaret Ann Brady. They allowed me free access to talk with visitors and provided me with technical and logistical support, as well as sharing their thoughts and experience. My study, needless to say, would not have been possible without their openness and creativity. These two museum theatre programs stand as exemplars of this genre.

The support, guidance, and mentorship of Dr. Robin Mello have been invaluable to me. Robin spent many hours with me on the phone, offering another perspective on the doctoral process and encouraging me to keep my eye on the prize.

Carolyn Cutler provided essential editing assistance throughout this project, but especially at the end. She also shared her wise insights into the dissertation process. Her counsel kept me grounded in crucial moments.

Finally I wish to thank with all my heart my sister Jennifer, who has really been a partner on this PhD/dissertation journey. She has had to read my writing, hear my quandaries, sympathize with my frustrations, and generally provide back-up support so that I could focus on the task at hand. She has mothered my child when I was unavailable, so that Sophia did not have to wonder or worry about her place in the world. It is an understatement to say I could not have done it without her.

My daughter Sophia kept me sane by reminding me of why I wanted to do this in the first place, grounding me, and giving me inspiration to make her proud.

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TABLE OF CONTENTS

	Page
ABSTRACT	ii-iii
ACKNOWLEDGMENTS	v-vi
VITA	vii
LIST OF TABLES	xi
LIST OF FIGURES	xiii
Chapters:	
1. INTRODUCTION 1.1.1 History of Museum Theatre 1.1.2 Related Pedagogic Theatre 1.1.3 Development of Present Practice 1.2 Defining the Problem 1.3 Rationale 1.4 Theoretical Framework 1.5 Research Questions 1.6 Definition of Terms	
2.1 The Changing State of Museums 2.1.1 The Changing Definition of Meaning 2.1.2 The Meaning-Making Paradigm 2.1.3 Elevation of Education within Museums 2.1.4 Learning in Museum Theatre 2.1.5 Museum Theatre Research 2.2 Theories of Emotion and Affect 2.2.1 Empathy as Vehicle for Emotions 2.3 Theatre/Performance Theory 2.4 Transactional Theory 2.4.1 Aesthetic Engagement 2.4.2 Performance as Transaction 2.4.3 Differences between reading a book and watching a	

3.	METHODS	99
	3.1 Elements of the Study	100
	3.1.1 Description of the Sites	
	3.1.2 Selection of Informants	103
	3.2 Data Collection	109
	3.2.1 Pre-show Surveys	109
	3.2.2 Post-show Surveys	
	3.2.3 Observations	113
	3.2.4 Focus Group Interviews	114
	3.2.5 Follow-up Interviews	116
	3.2.6 Pilot Testing of Instruments	
	3.3 Data Analysis	124
	3.3.1 Pre-show Survey.	126
	3.3.2 Quantitative Data	127
	3.3.3 Qualitative Data	
	3.3.4 Question E data from Post-show Survey	128
	3.3.5 Development of Categorizing System	
	3.3.5.1 Assessment	
	3.3.5.2 Story	132
	3.3.6 Codes of Meaning	
	3.4 Summary	
4.	FINDINGS	136
	4.1 Description of the Sample	
	4.2 Pre-show Survey Findings	
	4.3 Post-show Survey Findings	144
	4.3.1 Question E data	155
	4.4 Focus Group Interviews	
	4.4.1 Efferent Response	
	4.4.2 Aesthetic Response	
	4.5 Follow-up Interviews	
	4.5.1 What was selected for attention	166
	4.5.2 What meaning was created	178
	4.6 Focus Group Interview Categories	
	4.7 Comparison of Focus Group and Follow-up Interviews	191
	4.8 Observations	
	4.9 Negative Case Analysis Findings	198
	4.10 Analysis of Frankly Franklin	
	4.11 Summary of Findings	
5.	DISCUSSION	212
	5.1 What prior experiences and understanding do spectators bring to the	
	performance	215

5.2 Is there a predominance of efferent stance over aesthetic for spect	ators of
museum theatre	219
5.3 What was selected for attention from the performance?	224
5.4 How do spectators create meaning from the performances?	227
5.5 In what ways, if any, does the observer become part of what is ob	served
	237
5.6 Surprise	
5.7 What happened to Frankly Franklin?	
5.8 Why did participants remember?	
5.9 Beyond Reading and Transactional Theory	245
5.10 For future research	248
5.11 Trustworthiness	251
5.12 Limitations of the Study	252
5.13 Conclusion	255
BIBLIOGRAPHY	260
APPENDIX A The Settings	282
APPENDIX B Pre-performance survey	296
APPENDIX C Post-performance survey	298
APPENDIX D Request for contact information	300
APPENDIX E Focus group interview question guide	302
APPENDIX F Question guide for follow-up interview	
APPENDIX G Question guide for interview with performance creators	306
APPENDIX H Observation form	308
APPENDIX I Pre-performance survey invitation script	310
APPENDIX J Post-performance survey invitation script	312
APPENDIX K Script at beginning of focus group interview	314
APPENDIX L Script to solicit participation from performance creators	316
APPENDIX M Consent to participate in research form	318

LIST OF TABLES

Table		Page
4.1	Totals for each instrument and site.	138
4.2	Age of Sample	140
4.3	Characteristics of Samples in percentages	140
4.4	Expectations for visit and performance in percentages	142
4.5	Expectations by gender in percentages	143
4.6	Responses to Character(s) in performances by percentage	146
4.7	Responses to Situations(s) in performances by percentage	147
4.8	Responses to performance overall, factual & emotional by means	150
4.9	Responses to questions of surprise & expectations met in percentages	151
4.10	Codes for why participants were surprised	152
4.11	Categorized responses of best remembered events/moments/items in perce	entages
		159
4.12	Comparison of efferent vs. aesthetic segments coded from Follow-up Inter	view
	data in percentages	165
4.13	Typology Chart with percentages for Follow-up Interview data	167
4.14	Comparison of expectations from Frankly Franklin vs. 4 other plays	203

4.15	Comparison of Frankly Franklin to 4 other plays group in their responses to	
	Character(s) in Performance by Percentages.	.204
4.16	Comparison of Frankly Franklin to 4 other plays group in their responses to	
	Siutation(s) in Performance by Percentages	.205
4.17	Responses to performance overall, factual & emotional by means	.206
4.18	Responses to Questions of Surprise and Expectations Met in percentages	.206
4.19	Comparison of efferent/aesthetic coding of data from Question E in percentage	es
		.207
4.20	Comparison of efferent vs. aesthetic segments coded from Focus Group Interv	view
	data	.208
4.21	Comparison of efferent vs. aesthetic segments coded from Follow Up Interview	·W
	data in percentages	.208

LIST OF FIGURES

Figure		Page
1.1	Transactional-Spectator Theory Chart.	23
3.1	Elements of the Study	100
3.2	Header for Data Segments Table	130
3.3	Typology Chart	132
4.1	Pie Chart of Comments for expectations met	155
4.2	Diagram of Category Progression.	179
5.1	Diagram of Efferent-Aesthetic Axes	246
A.1	Diagram of Performance Area for Into the Veins	250
A.2	Diagram of Performance Area for Look for my Picture	253
A.3	Diagram of Performance Area for Diary of the Depression	256
A.4	Diagram of Museum of Science, Boston performance area	257

CHAPTER 1

INTRODUCTION

The impetus for this dissertation arises out of my experience as an actor in many museum theatre performances. As I played a variety of roles, I contemplated the work of the spectator in these performances: how far could I stretch the spectator's ability to connect with the play? I explored this idea experientially, often taking on roles as far away from my own personality as possible, such as playing an abino crab, a French male character and a Brazilian rubber tapper. Additionally, audience response fascinated me. Sometimes people were furious, sometimes people cried, sometimes people remembered me years later. Sometimes people watched the same show over and over. I also analyzed museum theatre I experienced as a member of the audience, theorizing about what worked and what didn't. Because of these experiences, I became interested in exploring systematically what happens with the spectator who watches a performance, particularly in a museum context where one might expect a focus on education rather than aesthetic enjoyment of an artistic endeavor. It is my hope that my work will help museums and theatre professionals to develop effective theatre programs that teach ideas through emotionally engaging performances.

History of Museum Theatre

Museums and historic sites in the United States and Europe began to use theatre as a way to help visitors understand exhibits, sporadically in the early twentieth century, and then with more frequency from the 1980s to today (Anderson, 1984; Hughes, 1998). Zoos and aquaria also initiated experimental projects with the theatre medium in recent decades (Rutowski, 1993; Maloney & Hughes, 1999). In some institutions, the use of theatre was established into the general educational and interpretive mission (Quinn and Bedworth, 1993; Farmelo, 1993; Rubenstein & Needham, 1993; Baum and Hughes, 2002), while in others, theatre remained experimental, performed intermittently.

The chronicle of the use of theatre in museums, historic sites, zoos, and aquaria has been an uneven one. Neither smooth nor linear, perhaps the development of using theatre in museums is best described as an oscillating motion. For every two steps that were taken forward, there was one step back. A promising program would emerge just as another of long-standing was cut from a museum's budget. Despite successes in early projects of the late 1970s and early 80s (Munley, 1993; Quinn & Bedworth, 1993; Farmelo, 1993; Stillman, 1990) finding a substantial foothold in the museum has been a challenge for those using theatre. Nearly fifteen years ago, Oestricher (1990) pronounced the pioneering age of museum theatre nearly done, presumably with a new age of established practice to follow, and certainly strides have been made to solidify theatre's place in museums (Bridal, 2004), but articulating museum theatre's nature, purpose and effectiveness continues to be essential for its survival. Though one step has not

necessarily led to another, the persistent efforts of various institutions increased to the point in the 1990s when they began to form a unified movement called museum theatre.

While museum theatre has a relatively brief history with no distinct line to prior practice, disparate fields of activity have contributed to its development and precepts. This chapter reviews precursors and practices relevant to museum theatre, such as Chautauquas, performance art, drama in education, and living history performances. As well, it covers the history of museum theatre per se and reflects on the challenges and successes of this format. Finally, while museums place a lot of personnel and financial resources into developing and maintaining museum theatre, no one knows how successful this format is at conveying not just information about a topic or historical era, but also the feelings people might or would have had in relation to the subject. This chapter ends with the outline of a research project designed to explore this aspect of museum theatre effectiveness.

Related Pedagogic Theatre

An early precursor to museum theatre was the community-based Chautauqua movement that began in the late 1800s and continues in slightly different forms today. Originally providing rural communities with wholesome evenings of music, lectures and performances for edification (Knapp, 2006), it has evolved into cultural tourism events that "combine theatre with a historical theme" (Ohio State University-Newark[OSUN], 2007, ¶ 1). Touring shows of performers playing famous people from the history of politics, literature and science are offered in rural community-based venues across the United States, particularly in the mid-west. The continuing presence of Chautauquas can

be seen by a simple internet search, which provided announcements for events from Ohio to Oklahoma (OSUN, 2007).

Another analogous practice is performance art, often seen as shattering boundaries built by museums, but also attempting to "act out art" (Sayre, 1989, p. 1). This can be compared to the impulse present in museum theatre to dramatize art, history or science and explore their boundaries. For example, Two Undiscovered Amerindians, a performance art parody in which artists Guillermo Gomez-Pena and Coco Fusco were displayed in role as newly-discovered primitives in a large cage, was "performed" for three days at a time in and outside of museum spaces, exploring, among other ideas, the notion of who watches whom in museum displays (Goldberg, 1998; Schechner, 2002). The reflective and reflexive undercurrents of Pena and Fusco's performance provoked questions about the status quo regarding how we look at ourselves and others, as well as how we look both at objects on display and people on display, treated as objects. Similar undercurrents are visible in a museum theatre performance that occurred at the Powerhouse Museum in Sydney, Australia, when a group of actors silently played a school of fish, fancifully costumed in 1950s swimwear and swimming in pantomime through the museum's galleries examining exhibition cases. The fish attracted visitors, gathering crowds who followed and imitated the fishes' attention to and investigation of exhibitions. This performance put into relief the activity of looking at objects and raised questions as to how and why we go to museums. The behavior of the human fish, silently examining objects as they swam through the exhibit galleries and stopped at various

pieces, typifies that of the attentive museum visitor and in fact, promoted the same behavior in those viewing the performance (Beattie, 1997).

Casey (2004) suggests that there exists a performative nature to museums and museum-going which provides museum theatre both a fitting set and fertile content to explore. The museum building and the objects within it offer an analogy to a proscenium stage set (Casey, 2004) in which the visitor performs his or her role of "museum visitor" in a slow promenade looking quietly at objects displayed. A museum theatre performance requires a shift in behavior and in doing so, a shift in the role of the visitor to that of theatre-goer, who stops moving to then sit or stand with a group of other audience members and watch a performance. Visitors who participated in this study chose to become members of an audience after being invited in some way to watch a performance. This activity became part of their museum-going experience.

Though museums may appear particularly suitable and productive locations for performance (Quinn & Bedworth, 1993), they are not alone in employing theatre for educational purposes. The application of theatre performance to pedagogy has increased in the last two decades and the sites for such performances, from corporate boardrooms to senior centers to schools, are remarkably disparate and widespread. The contents of these performances address a wide breadth of issues such as sexual harassment, aging, AIDS prevention, and science education. A theatre company in New York called Plays for Living offers performances for corporations and youth groups to help facilitate dialogue and change about gender and racial discrimination, date rape and substance abuse, among other subjects. In India, a country-wide government initiative sponsored a performance

using puppetry to communicate, in various regional languages, about science and technology (Tyagi & Sinha, 2004). Another effort was a performance that took place in local primary schools in England, created to challenge young people to think about automobile crime (Allen, Allen, & Dalrymple, 1999). These performances have in common the expansive aim of pedagogy. They are meant to educate audiences in some way about a topic. Work such as these projects can be associated with the umbrella terms theatre in education (Jackson, 1993), drama in education (Wilhelm & Edmiston, 1998; Heathcote & Bolton, 1995), or applied theatre (Taylor, 2003).

Theatre in education (TIE) refers generally to theatre programs carried out by a theatre company of actor/educators who work with school systems to align with curriculum goals and difficult social issues like bullying. TIE employs dramatic strategies such as role playing and hot seating, engaging the spectator as participant. Similarly, drama in education (DIE), or process drama (Bowell & Heap, 2001) employs audiences as participants in order to create dramatic worlds in which to explore ideas, and is often connected to a curriculum. DIE strategies are led by a teacher, who is frequently the students' classroom teacher. Applied theatre is a newer term that generally indicates community-based theatre projects or theatre with specialized populations like offenders and shares many methods with TIE. Museum theatre can incorporate elements of TIE or DIE, in particular, the combination of theatre practice with an extra-theatric educational goal, and be considered applied theatre (Taylor, 2003).

Museums use theatre as part of their educational programs because of the specific qualities theatre can add to the learning experience (Farmelo, 1993; Bridal, 1990). It is

the attempt to add aesthetic qualities, "to appeal to our senses" (Jackson, 2005, p. 106) to facilitate learning. It is the belief that through aesthetic response, visitors will see the museum and its content in a different light. Exploring the nature of aesthetic response, Bundy (2003) writes that, "The ultimate possibility of an aesthetic response is that it offers people new ways of seeing and understanding the world in which they operate" (p. 172).

Museums of any discipline have reached out to theatre for these reasons. Scientific museums are trying to find ways of "communicating scientific information with greater impact" (Quinn & Bedworth, 1993, p. 9). For history centers, it is difficult for factual information in exhibition labels to convey the meaning of historical events or people's efforts in the lives of human beings. For example, facts about how the Great Depression began, statistics about its economic effect on U.S. citizens, and artifacts from that era do not illustrate how it felt to live during that time. Statistics and artifacts from Benjamin Franklin's life do not convey how he and those around him felt about the many important historical and scientific events in which he took part. Facts and artifacts can allow emotional distance, which impedes the kind of understanding that makes history and science come alive in the human mind. Theatre adds the element of emotion through story telling.

Theatre has also opened up new areas of content that might be addressed in museums. For instance, the Museum of Science, Boston used a theatrical presentation in an exhibition on women in science to highlight the life and work of Ada Byron King, countess of Lovelace, an early 19th century mathematician who wrote about the

Analytical Engine, a predecessor of the first computer (Hughes, 1998). As Lord Byron's daughter, a Victorian celebrity, and a woman in a time when women were not thought able to be mathematicians, Lady Lovelace was more than unusual. It is critical for people to understand the contextual elements that make Lady Lovelace's achievements even more spectacular. Simple demonstrations rely on phenomena that can be concretely visualized, such as optical illusions or the effect of one chemical on another. The influence of an historic time and place on a scientist's work is more abstract. A play script provides the necessary background for audience members, thereby placing Lady Lovelace squarely in the center of mathematical and technological history.

Living history museums, traditionally reliant on first-person interpretation methods, which will be defined later in this chapter, also began to embrace theatre conventions in a new way, increasing the variety of subject matter that could be tackled. Slavery and the African-American experience at Colonial Williamsburg was one such area. Through scripted performance events such as a slave auction, well documented in the press, and smaller domestic scenes, Colonial Williamsburg put into focus a critical issue that had been underrepresented for years (Geist, 1997; Carson, 1998).

In summary, theatre has been seen as a way to move beyond established museum functions of collecting and exhibiting objects. From the examples given, this has usually been a process of adding theatre after the establishment of the exhibition or museum. However, one museum changed this sequence, integrating theatre as a part of the original conception of a building and its program. In the Canadian Museum of Civilization's initial charter, it stated that the integration of a live interpretive drama program was to

add a dimension to the traditional museum experience by interpreting aspects of heritage more effectively than static objects (Alsford & Parry, 1991).

Development of Present Practice

As I have outlined, while there are analogous efforts, there are few direct antecedents of museum theatre. An argument can be made that the most obvious forbearer is living history, described in-depth later in this chapter, due to its shared contexts and use of people in role. Museum theatre, however, is wider in scope than living history, approaching, as it does, all disciplines and employing an expansive repertoire of styles. In fact, the definition of museum theatre currently encompasses living history as one technique under its broad umbrella (International Museum Theatre Alliance [IMTAL], 2007).

The explicit use of theatre, by calling the event a play, or by using lighting or sound effects, or acknowledging the performer as an actor, is a key aspect of museum theatre practice that differs from most living history programs. There is no attempt at maintaining an illusion beyond the confines of the performance event. There is a clear beginning, middle, and end. The theatrical frame (Goffman, 1986) is clearly delineated. Visitors can witness actors in and out of character. There is aesthetic intention in the creation of such performances, recognition of theatre as an art that should be judged on its artistic merit along with its pedagogic purpose. This stands in opposition to the type of first-person interpretation that occurs in Plimoth Plantation, where interpreters are always in-role in the year 1627 in their interactions with visitors (Snow, 1993). Visitors are never invited to see the interpretive framing of the event, which in living history museums is

often the entire visit, and the theatrical methods by which visitors step back in time are never identified. It is implied, but not named.

Nonetheless, a progression in the use of people-in-role in exhibits is evident from living history to museum theatre. In his book on the development of living history, Anderson (1984) traces its roots to Skansen, an open-air museum in Sweden, which created animations of historical dioramas, placing people in displays to fill what was perceived as "an empty shell" (p. 19). Living History in the United States, as a genre of this kind of theatrical presentation, evolved and extended the notion of animation to include interaction with visitors, who encountered first-person interpreters, staff employed by the site to embody people from the past, such as the villagers of Plimoth Plantation or Colonial Williamsburg. These first-person interpreters engaged visitors in improvisational conversations that highlighted the similarities and differences between past and present (Snow, 1993; Anderson, 1984). For an extensive account of first-person interpretation methods, see Stacy Roth's book, *Past into Present* (1998).

Concurrent with later developments in living history programs, after Plimoth Plantation had changed its approach to include funeral displays and other darker aspects of the Pilgrims' story (Snow, 1993), and Colonial Williamsburg had begun to address its African-American presence (Carson, 1998), theatre programs were initiated in other kinds of institutions. Scientific and other-disciplined museums began to incorporate theatre into their live presentations in the 1970s and especially 1980s, evidenced by the Association of Science-Technology's report, *A Stage for Science* (Grinnell, 1979). In 1971, the Science Museum of Minnesota hired actors to perform in exhibitions (Quinn &

Bedworth, 1993). Institutions such as the Museum of Science, Boston and the Franklin Institute in Philadelphia had established histories of presenting scientific phenomena in demonstrations for visitors, and while continuing such live presentations, they added more theatrical productions (Grinnell, 1979). These types of museums began to present characters from the history of science and scripted plays highlighting some aspect of an exhibition or scientific development. Complex and controversial issues in science became productive content for theatre performances (Hughes, 1998a).

Meanwhile, art museums had presented storytelling (Zucker, 1998) and performance art (Goldberg, 1998), but in the late 1980s began to use the more traditional theatrical form, scripted plays, to interpret specific art works or movements in art (Stillman, Jones & Luefjen, 1993). All of these burgeoning interpretive theatrical activities coalesced into a new field of museum interpretation and theatre practice, and in 1990, along with the formation of the International Museum Theatre Alliance, a non-profit membership organization for those using theatre in museums (Hughes, 1998), the label "museum theatre" was coined.

Defining the Problem

Thus museum theatre banded together with a few agreed-upon boundaries, encompassing some of the tenets of living history, but moving toward a more explicit engagement of the theatrical form (Hughes, 1998; Bridal, 2004), acknowledging the importance of theatrical elements such as acting, playwriting, and directing. This change was manifested in the hiring of theatre professionals, rather than relying on existing staff or hiring in terms of the disciplines of history, art or science. Museums employed theatre

professionals to write, direct and act to create the performances, in collaboration with appropriate experts in history, art or science. The museums became the producing bodies of museum theatre. The point was to achieve a balance of form and content, art and education. Therefore, these theatre professionals were at the planning table not to serve the educators or experts, but to collaborate equally, each contributing their recognized skill. This kind of collaboration had never been established before in most museums. Prior to the 1980s, collaboration of any sort, even between curators and educators, was rare (Weil, 1990; Alexander, 1979).

There were other changes that reflect the shift toward more openly theatrical fare, such as signage using the word "drama" or "play" to describe a program, and in the expanded choice of topics approached, but it is the change in personnel, in who was hired to create these learning experiences, that most clearly defines it.

This infusion of theatre proponents added various tensions to the process of museum exhibition and program development, which is traditionally the domain of designers, curators, planners, and educators (Farmelo, 1993; Hughes, 1998).

Considerations of space, acoustics, and visuals in exhibitions were complicated by the needs of actors who must have enough space to perform, lighting to be seen, and sound equipment to be heard. Unforeseen, related problems developed. For example, if a performance was particularly successful, it could create a new problem of traffic flow, with too many visitors in a small area of the gallery (Farmelo, 1993). Accommodations had to be made on all sides. Both theatre artists and museum staff had to recognize each others' needs and contributions.

These new tensions included discussion of the content and style of performances, as well as responses to it. The appropriateness of theatre as a form to convey the messages of museum exhibition was sometimes questioned by non-theatre staff (Farmelo, 1993). Part of this discomfort stems from a long standing argument (Alexander, 1979) between museum staff, such as curators, who would leave objects to speak for themselves and museum staff, such as educators, who believe interpretation is necessary for visitors who are not experts in the subject matter of the museum. Object-centered curatorship opposes the interference interpretation creates between object and visitor (Weil, 1990), and the loud spectacle of theatre as a method of interpretation amplified the level of interference, causing some curators to cringe (Farmelo, 1993). This shift from object-centered museum philosophy to visitor-centered is related to the movement toward collaboration and has opened up the possibilities for what constitutes learning in a museum, which will be part of my review of the literature.

Museum theatre advocates have had to articulate continually the value of theatrical interpretation. Matthews (1998) spelled out various constituents' concerns: "Skeptical museum directors and governing boards still request data that supports the educational benefit, cost efficiency, or audience-building potential of this innovative medium. Some curators continue to oppose museum theater [sic] adamantly because of its inherent extrapolation of known facts. They fear misinformation and misunderstanding" (p. 102). [CU1]

There remain pockets of suspicion that the demands of theatre for entertainment will supersede the demands for accuracy and authenticity that are the concern of

scientists and historians. This criticism was chronicled by Malcolm-Davies (2004) in a multi-national study of costumed interpretation at historic sites. The implication is that a theatrical emphasis will outweigh the needs for accuracy within the discipline, whether history, science, or art.

In an evaluation of a performance called *Buyin' Freedom* at the National Museum of American History, the researcher included staff reaction to the play. Munley (1993) found staff generally positive about theatre as a method of interpretation, but they maintained concerns about authenticity and the potential that the emotionality of the performance and visitors' responses to it would lead to miscommunication and misinterpretation. Furthermore, many staff were not in favor of the play being staged within the exhibition, a period room, and wanted it moved to a theatre space due to unease about the conservation of the collection and confusion over the time period. They felt if the play were performed in a theatre there would be no visitor confusion that the play was taking place in the 20th rather than 18th century (Munley, 1993). Positive visitor response to the intimacy and immediacy of the performance within the exhibition stood in direct contrast to staff concerns.

Discomfort is discernible in the title of the Science Museum, London's evaluation report, *Enlightening or Embarrassing?* (Bicknell & Mazda, 1993). Though the Science Museum's drama program had flourished after beginning in 1988, there was continued apprehension by staff that an encounter with an actor performing in role might embarrass visitors. By and large, this proved not to be the case, but many adults, citing their

hesitancy to engage an actor directly, admitted to using their children as socially acceptable means to access the performances (Bicknell & Mazda, 1993).

Another area of concern has been funding. Museum theatre programs have often been viewed as an expensive alternative to building exhibits (Farmelo, 1993). This is in part due to the perception that staffing costs are so much higher than exhibit costs. An argument can be made that theatre is less expensive than the overhaul of outdated exhibits, but the sensitivity to costs persists. While museum theatre programs have been successful in receiving generous grant support, they strive to be included in museums' general operating budgets.

These tensions have essentially focused on the broad question of whether art can or should teach. Jackson (2005) explored this issue in terms of theatre's purpose. He argued that theatre can be both educative and aesthetic, but only when the aesthetic dimension is equally as powerful as the educational. Without the aesthetic, this application of theatre becomes merely didactic.

Paradoxically, while supporters of museum theatre have been exclaiming its virtues as a powerful educational tool that could affect visitor attitudes and inspire learning, little has been done to defend such claims, or, equally importantly, to respond to criticism (Malcolm-Davies, 2004). Conference sessions on museum theatre persist in presenting anecdotal evidence at best. In the session, "Utilizing Museum Theatre Techniques to Create Lasting Memories," at an American Association of Museums'

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Among the many museums who have received grant support for museum theatre are The Science Museum of Virginia, which received a \$500,000 grant from the Carpenter Foundation; The Museum of Science, Boston, which received a three-year grant from the Filene Foundation, as well as funding from the National Endowment for the Humanities; and the Walters Art Gallery, which received grants from the National Endowment for the Arts and the Getty Program.

meeting (2007), presenters declared, "Museum theatre is a powerful tool for relating information and providing significant context for museum artifacts" (Bridal, 2007, ¶ 1) and furthermore, that theatre would lead to empathy, which would in turn lead to better retention. No studies were cited to substantiate these assertions. Statements like these go uncontested and unexamined, and the dearth of systematic research prevents critical discussion and the development of programs based on methodically analyzed data.

Consequently, there is a lack of a real understanding of what museum theatre accomplishes and how people tend to respond to it. And though tensions have gradually eased between proponents of museum theatre and its skeptics, these points still need to be addressed. Debates have continued and suspicions have remained regarding issues of misrepresentation and truth, theatre's place in the museum, and its value as education. Museum theatre remains a contested practice. The problem, therefore, is a lack of research that clarifies critical aspects of the museum theatre event and people's responses to it so that it can be more fairly and completely evaluated in terms of its value and how it contributes to museum learning.

Rationale

Regardless of the controversies surrounding it, the use of museum theatre has continued, and in some institutions increased steadily, but as has been detailed here and noted by others (Jackson, Johnson, Leahy, and Walker, 2002) serious study of this medium has been slower to develop. To summarize, most existing documentation (Baum & Hughes, 2001; Bicknell & Mazda, 1993; Rubenstein & Needham, 1993) is evaluative in nature, focusing on the appropriateness of theatre in particular institutions, or the

effectiveness of theatre to achieve specific educational goals. A few studies have measured visitors' acquisition of content through pre- and post-test measures (Baum & Hughes, 2001). The majority of these studies indicate an overall positive response from visitors (Baum & Hughes, 2001; Bicknell & Mazda, 1993; Rubenstein & Needham, 1993), but have not probed beneath the positive façade of visitor reactions such as those who feel "the actors made the museum exhibits come alive" (Bicknell & Mazda, 1993, p. 26) and that the play was "beautifully done" (Munley, 1993, p. 73) to understand why it is that visitors might respond favorably to museum theatre, and how or what visitors learn from performances.

Most existent studies of museum theatre have been based on the information paradigm, a model of communication that involves the transmission of messages from sender to receiver (Silverman, 1999). These studies have generally sought to understand the effect of museum theatre upon audiences with the assumption that messages in a museum theatre communication are received by receivers exactly as they are sent.

Questions centered on whether visitors received the messages as sent, e.g. Did visitors get it?. In this paradigm, visitors are perceived as passive receivers of information (Silverman, 1999).

The movement in museum theory toward a meaning-making paradigm informs the present study. Silverman (1999) charts the beginnings of this change in museums to a parallel change in communication theory, which shifted focus from message transmission to meaning in the early 1970s. In the meaning-making paradigm, visitors are active meaning makers of a communicative event. However, Silverman (1999) points out that

possible meanings are not infinite, but bound by the culture in which the communication takes place. While this places certain meanings above others, based on dominant ideologies of the culture, it allows the legitimacy of multiple meanings. The meaningmaking paradigm opens up the potential of meanings made in a performance event, but understanding of those meanings in research thus far has remained elusive.

This lack of understanding in museum theatre is compounded by the newness of empirical studies in theatre reception. Audience studies have traditionally focused on identifying theatre audience demographics (DiMaggio, 1978; Roose, Waege & Agneessens, 2003; Tulloch, 2005), though there is now a growing body of studies focused on the spectator's experience in theatre reception (Klein, 1987; Klein, 1995; see Bennett, 1997). Furthermore, performance theory has begun to recognize the phenomenological experience of live performance for an audience (Reason, 2004; Bennett, 1997; see Schoenmakers, 1992; and Cremona, Eversmann, van Maanen, Sauter & Tulloch, 2004).

The attempt to explain through empirical research the relationships between performance characteristics and audience reactions is part of this recent trend (Schoenmakers, 1992). Among the researchers currently undertaking studies of audience reception, there are psychologically- or sociologically-oriented theoretical frameworks in use (Tulloch, 2005). In a study of theatre events and their audiences, Tulloch (2005) lays out the various differences in approach to reception studies. He highlights Sauter's push for a paradigm shift in our conception of a theatre event as "communicative event" rather than as a "work of stage art" (Tulloch, 2005, p. 12). Furthermore, Tulloch (2005)

situates reception studies within the postmodern turn in academia toward hearing from "the ordinary other" (p. 20), in theatre's case the audience, minimizing the author's voice. Still, Tulloch notes that ethnographic studies attempting to capture those voices have not materialized. What is needed, put succinctly by Tulloch (2005), "is a multifaceted analysis of active theatre audiences" and to connect this concept of active audiences to "theories of spectatorship" (p. 17). This study is an attempt to address many of these issues. I have attempted to capture the voice of the spectator, articulating their experience of the theatre event and maintaining the conception of theatre in museums as both communicative event and work of art.

Due to the lack of direct antecedents, the contested nature of its practice, and the dearth of research in the field, as well as in closely related fields, empirical research such as this study, focusing on spectator response to performances, is needed in order to provide a foundation for museum theatre practice. Understanding and describing the interactive process of museum theatre is central to this study.

Theoretical Framework

In this study, spectator responses to performances in museums have been examined through the lens of transactional theory (Rosenblatt, 1978) in literature to increase understanding of the nature of response to museum theatre. Transactional theory is a way to conceptualize the act of reading and making sense of text, and in this study it has been applied to the act of watching a performance in a museum and constructing one's understanding of it. Transactional theory can be considered in parallel with reader-response theory (Iser, 1972).

The rationale for this choice to use transaction theory is twofold. While lines have been drawn between reading and drama in the work of various drama-in-education researchers, such as Crumpler (2006) and Booth (1998; 1985), no study has explored the fruitful parallels between reading a text and watching a performance. There have been connections made in reception theory to reader-response, where there has been a recent shift in recognition of the role of the spectator. Bennett (1997) goes so far as to argue that, "without the existing corpus of reader-response theory, it is unlikely that there would be that current concern of drama theorists for the role of the audience" (p. 65). And while Bennett (1997) has delineated the influence of reader-response theory on theatre reception, the application of transactional theory to analyze a performance event is new. Transactional theory is described in detail in the next chapter.

Research Questions

The central question of this investigation is: What is the nature of response to a museum theatre performance? I have taken a theoretical and phenomenological approach focusing on spectators' responses to several different performances in two museums, and situating the spectators' meaning making as part of the theatre event. There were several reasons for choosing a phenomenological perspective for this study. It emphasizes the essence of an experience for a particular group of people (Patton, 1990), attempting "to describe and study meaningful human phenomena in a careful and detailed manner" (Tesch, 1990, p. 37). Phenomenology suggests a way to explore a problem or phenomenon by studying how people describe an experience through their senses (Patton, 1990). To that end, I have focused on spectators' experience, how they felt and what they

perceived, of the phenomenon of a performance event. Inherent in this approach is recognition of the interpretive nature of experience. "Interpretation is essential to an understanding of experience and the experience includes the interpretation" (Patton, 1990, p. 69). This echoes Rosenblatt's consideration of the reflective nature of response. People have a response and reflect, which colors a secondary response. Finally, this approach considers what the spectator brings to the event and his or her responses during and post-performance. My theoretical method employs transactional theory (Rosenblatt, 1978) as a lens by which to examine the relationship between spectator and performance. To better reflect transactional theory in the questions, I developed a chart (see Figure 1.1) of the main points of transactional theory in the first column, these same points transposed for what I am calling a spectator response theory, and the consequent question the points pose.

Consequently, the following are sub-questions of the overarching exploration into the nature of spectator response to museum theatre:

- What prior experience and understanding do spectators bring to the performance?
- How do spectators create meaning from the performance?
- What was selected for attention from the performance?
- Is there a predominance of efferent stance over aesthetic for spectators of museum theatre?
- In what ways, if any, does the observer become part of what is observed?

 This last question focuses on the notion of reciprocity that is at the heart of transactional theory (Rosenblatt, 1978) and explores whether and how reciprocity is visible in the data.

Reciprocity is a mutual exchange, in this case about the mutual exchange of ideas, emotions or understanding. Rosenblatt (1978) detailed how what is selected for attention is informed by the stance adopted by the spectator. Stances fall on a continuum between efferent and aesthetic. While the stance adopted by the reader is most often a mix of both poles, a purely efferent stance selects for attention only information that will be useful in a way, as someone might when reading a manual, and a purely aesthetic stance selects for attention the quality of the experience, pushing aside practicality, as someone might when reading a poem. The quality of an experience is often described in emotional terms. What is selected for attention and interpreted in spectator's responses can be placed on the efferent-aesthetic continuum. Responses that express a feeling or emotion regarding the performance experience would usually fall on the aesthetic side of this continuum. So, one can see indications of how emotions might play a part in spectator's responses by understanding what has been selected from the performance for attention and what stance was adopted. More detailed discussion of affect and emotion occur in the review of the literature and the final chapter.

TRANSACTIONAL THEORY SPECTATOR RESPONSE THEORY QUESTION FOR ANALYSIS		
There is no separation between object and subject, text and reader. There is reciprocity, or give and take, on both sides of such a transaction, rather than mere interaction. The observer becomes part of what is observed.	There is an attempt to lessen the separation between spectator and performance, so that the one informs and conditions the other, and in doing so, the spectator realizes the performance.	In what ways have the performance and spectators influenced and informed each other? How does the observer become part of what is observed?
Meaning is derived from within this transaction between reader and text, conditioned by both the constraints of the text and the experience of the spectator	Meaning is derived from within this transaction between spectator and performance	What meaning has come about from this transaction and how do spectators create meaning?
The reading process is an event, "comprising a particular reader, a particular human being, and the particular pattern of verbal signs of the text." (Rosenblatt, 2004)	The spectator brings their prior experience and understanding to this transaction.	What prior experience and understanding have visitors brought to this experience?
"Selective attention" functions to center attention on select areas of consciousness (Rosenblatt, 2004). What is selected for attention shifts dynamically and is affected by the physical, psychological and emotional state of the individual.	The spectator's selective attention in the reception of the museum performance brings some aspects into awareness and interprets these for meaning, while other aspects may be consciously or unconsciously suppressed or ignored.	What has been selected from the performance for attention?
A reader adopts a stance in relation to a literary work, on a continuum from efferent to aesthetic. • An efferent stance focuses attention on information that is to be gleaned from what is read in a text. • An aesthetic stance focuses attention on what is perceived and experienced from the text or performance through the senses and feelings or for the pleasure of the experience.	A spectator adopts a stance in relation to a performance, on a continuum from efferent to aesthetic. • An efferent stance focuses attention on information that is to be gleaned from what is seen and heard in a performance. • An aesthetic stance focuses attention on what is perceived and experienced from the performance through the senses and feelings or for the pleasure of the experience.	Is there a predominance of efferent over aesthetic stance for spectators of museum theatre? Or do spectators move dynamically between efferent and aesthetic stances?

Figure 1.1.

Transactional-Spectator Theory Chart

I recognize that the meaning made by the spectator in response to the performance is informed by a number of factors: the spectator's prior experience and knowledge, expectations for the museum visit and expectations for the performance experience, the performance text, which includes the set, script, sound and lighting effects, as well as verbalization, gesture and movement by the actor, and the intended meanings of the creators of the performance. Additionally, extraneous factors such as distracting noise from the audience, an overheated performance area, or the energy level of the spectator will influence spectator response. Spectator response is also historically-situated, shaped by time and place. This creates a particular experience with a particular spectator that may or may not share commonalities with another spectator's.

To review, the history of museum theatre reveals a practice that has enjoyed success and seen growth in its use, but that continues to be challenged and contested. Though research into museum theatre has found positive response by spectators, there is little insight into what that means. This study aims to provide further insight into the nature of spectator response to museum theatre performance, and the primary theoretical framework by which I have shaped the study is the transactional theory (Rosenblatt, 1978).

Definition of Terms

Several of the terms I have used thus far could have different meanings depending on your perspective as reader and mine as author. Consequently, a quick review of those terms is helpful so that I may be as clear in my intention as possible. Further clarification also follows in the review of the literature.

Theatre: This is a primary term used in this study, and there are many theories about what theatre is (Carlson, 1984; Cremona, Eversmann, van Maanen, Sauter, and Tulloch, 2004). A recent description that emerged from an international colloquium stated, "Theatre should be considered a place of meetings, encounters and confrontations between the performer and the spectator" (Cremona et al., 2004, preface). This definition captures the phenomenological quality of theatre tacit in this study.

Theatre, however, is a porous concept. It can be a place as well as an event, and when used in conjunction with the word museum connotes a genre that includes both place and event. Museum theatre is a performance of varying style and length that takes place in a museum, either within its walls or as part of its outreach programming and is intended to be educational (Bridal, 2004; Hughes, 1998). Here, the word performance signifies a live presentation or interactive improvisation offered to an audience. The performance is realized when the spectator, by playing his or her part as someone who willingly interacts or "suspends their disbelief" becomes part of the performance.

Theatre is an art that utilizes sound, gesture, movement, and images. Consequently, while museum theatre is pedagogic, I have also positioned museum theatre as aesthetic stimuli, which is separate from everyday stimuli in that it has been built with deliberate stylistic and semiotic choices. It is recognized that what is said and how it is said, constituting a museum theatre performance, is the product of creative aesthetic intention.

Applied theatre (Taylor, 2003) is a term to describe theatre that is used for educational purposes and takes place outside theatre walls, in different community settings. Its purposes are to inspire dialogue between performers and audiences, and to facilitate transformative experiences.

Museum: This word also contains many meanings and has been interpreted differently by current museum theorists as varying types of experience: "museum as narrative... museum as meaning making...museum as contextual model of learning...museum as flow and aesthetic experience" (Ebitz, 2007, ¶ 1-4). Broadly, museums are places that provide experiences. This notion of museums represents a shift in their meaning and in how meaning is made within them. They have moved from being object-based institutions to "idea-, experience-, and narrative-based institutions – forums for the negotiation and renegotiation of meaning" (Roberts, 1997, p. 147).

This shift in how meaning is made within museums has positioned meaning over facts (Rounds, 1999). Meaning is not fixed. Making meaning is more personal and active than the acquisition of isolated, static facts. Facts need translation into meaning (Rounds, 1999). The act of making meaning can be described as "building significance" (Ebitz, 2007). Meaning is made when a person perceives the relevance of an idea, thing, person, activity, or event, whether real or symbolic. How participants in this study perceived and articulated meaning in response to a museum theatre performance is key to understanding the nature of the event.

Spectator: In this study, a spectator is a person who is visiting a museum and then has chosen to watch a performance that is part of the museum's programming.

Living history: is the practice of first- and third-person interpretation in historic sites (IMTAL, 2007), farms and agricultural museums (American League of Farms and Agricultural Museums [ALFAM], 2007). An interpreter who is costumed but does not take on a character is considered to be third-person while a person who creates a fictional character or portrays an historical character is a first-person interpreter. Living history and open-air museums in the United States include Plimoth Plantation, Colonial Williamsburg, Conner Prairie, and Old Sturbridge Village. These sites are generally recreated villages, farms and towns set within a specific time frame. For example, Conner Prairie is set in 1836. There, first-person interpreters assume the roles of fictional, but historically accurate characters, never stepping out of role when talking with visitors or carrying out historically appropriate activities and chores (Rosenthal & Blankman-Hetrick, 2002).

First-person interpreters: These are employees at historic sites, farms, and open-air and living history museums who mediate learning by engaging visitors in dialogue (Cunningham, 2001; Roth, 1998). Though this type of interpreter interacts with visitors in the role of another character, they are rarely referred to as an actor (Matthews, 1998; Malcolm-Davies, 2004). There is a common perception that the difference between actors and interpreters lies in the amount of research required and the boundaries of performance (Matthews, 1998). The interpreter must learn a great deal of history and be able to stay in character beyond the confines of a set script. The assumption here is that an actor would not prepare to play a role similarly. Contradicting this assumption, Ashmore (1998) detailed the serious preparatory work done by actors who worked at the Museum of the Moving Image in London. Both the actor and the interpreter performing in the museum theatre field must have a hybrid of skills: "strong interpersonal and communication skills, and an element of the educator as well as performer" (Ashmore, 1998, p. 48).

Interpretation: In museums and historic sites interpretation refers to the process of communicating with visitors about a museums' collection or discipline, either through remote means such as labels or video, and personally, through direct contact between human beings engaged in dialogue (Cunningham, 2001). The traditional practice of interpreting the meaning of objects for the visitor (Casey, 2005) has changed, and meaning is no longer solely the purview of the museum. Negotiated interpretation is now sought (Rounds, 1999).

In the next chapter, the review of the literature will include further elaboration of transactional, reader-response, reception and performance theories. The perspective of

museum theory will be detailed, as well as relevant research in visitor studies and especially museum theatre.

CHAPTER 2

REVIEW OF LITERATURE

The emergence of museum theatre is located in an era of change in how we think about the world. The impact of Heisenberg's uncertainty principle and Einsteinian physics have ricocheted beyond science into the foundations of various domains of inquiry in this study. There is acknowledgment that in the act of studying phenomena, phenomena are changed in ways that cannot be predicted. Rosenblatt (1978) developed the core of transactional theory based on this principle. Recognition of the instability of meaning and the search for a process by which to locate meaning are integral to contemporary theories of museums, education, and performance. For a full understanding of the dynamics of this study, it is necessary to provide the various contexts for meaning within the evolving fields in which it takes place. The other changes in scientific thinking influencing this study are in cognitive science and neuroscience. These changes have to do with developments in understanding brain function. I will, therefore, trace the influence of these ideas on museums, performance, and education, pinpointing intersections between theatre and science, as well as between transactional and reception theory.

The Changing State of Museums

There are a number of debates that have been re-shaping the museum field, many which have implications for this study. The breadth of these debates are addressed and detailed in collections of writings such as Reinventing the Museum (Anderson, 2004) and Museum Frictions (Karp, Kratz, Szwaja, and Ybarra-Frausto, 2006). To begin with, fundamental questions revolve around how museums are viewed in contemporary society and what role they can play in order to stay vital and relevant. These questions have emerged only recently. In their history, museums have existed as self-evident, worthwhile institutions (Weil, 1995). Recognition of museums' vulnerability has opened museums to new pressures. As Weil (1995) and others point out, museums have become susceptible to cost-benefit analysis, traditionally the measuring stick of for-profit companies. Funding bodies now seek demonstrable outcomes from museums. It is no longer enough for museums to simply exist. In the era of cost-cutting and down-sizing, museums must prove themselves worthy of continued financial support. Competition for funds and for visitors is vigorous between museums and other themed attractions. Museums' consequent self-reflection regarding their raison d'être and practice has led to experimentation with new methods of communicating their mission and their collections, and theatre was introduced as one of those methods.

Another freshly contested concern focuses on what is represented in museums and whose story is told. The burgeoning field of social history has informed changes in this area. Social history enlarged the scope of history beyond the famous figures and events of the past to the common people and mundane everyday activities (Crew and Sims, 1991).

Scholars searched anew in material culture sources such as census and tax records, and what they found complicated and diversified the picture of history that might be presented in a museum. A more heterogeneous society emerged, which necessitated new choices on objects to display and new ways of exhibition. As Crew & Sims (1991) observed, this was a problem for many museums, which tended to collect mostly objects from the wealthy and not from the ordinary person. The presentation of this more heterogeneous society is evident in the opening of new museums, their entire mission concentrated on the masses, such as the Lower Eastside Tenement Museum in New York, and various immigration museums. It is also apparent in the already detailed changes that occurred at Colonial Williamsburg when they began to highlight the perspectives of slaves and freed blacks in their interpretation program.

The Changing Definition of Meaning

Perhaps the most fundamental debate in museums that concerns this study centers on meaning. The American Association of Museums' report, *Excellence and Equity* (1992) reflected the discussion: "Concepts of the 'meaning' of objects and the way museums communicate about them are changing. Objects are no longer viewed solely as things in themselves, but as things with complex contexts and associated value-laden significance" (p. 2).

Taking it a step further, critical thought on the nature of knowledge and meaning has had deep ramifications in museums. Pearce (1990) places North American critical discussion as post-modernist, and post-structuralist: "...a central tenet of which is the conviction that all knowledge, and all value – aesthetic or social – have no external

reality but are socially constructed" (p. 2). The notion that knowledge and value are social constructions strikes at the center of curatorial function, which values the authority of scholarship, expertise and judgment (Pearce, 1990). In her examination of the meaning of objects, Taborsky (1990) states, "We do not gather meaning directly from the object, but create it using our own 'fore-knowledge' about our society" (p. 52). No intrinsic properties are contained within the object (Crew and Sims, 1991). It cannot speak for itself.

In Taborsky's analysis, the socially-created meaning is called a sign, derived from an interaction between object and interpreter (here she cites Peirce as her authority). In other words, there are two necessary parts to constructing meaning, but meaning does not lie within the object. The significance of the object emanates from our perspective as interpreter, but this is shaped by sign attributed to the object. Meaning is also limited, in Peirce's view, by the "group which has assigned the nature of these meanings" (p. 53). By virtue of choosing the object, placing it in a museum case, and offering it to the public, the museum has influenced the potential meanings of the object.

Taborsky's argument mirrors part of Iser's (1972) phenomenological description of the reading process. Taborsky's object is Iser's text. The process of making meaning in response to either is characterized similarly as an interaction. For Iser (1972) the "actual bringing to light" (p. 279) of a literary work is an action that occurs in a space between two polarities. The two poles Iser describes are the artistic, referring to the text created by the author, and the aesthetic, referring to the meaning-making[CU3] accomplished by the reader. Iser (1972) depicts a dynamic, intangible event:

The convergence of text and reader brings the literary work into existence, and this convergence can never be precisely pinpointed, but must always remain virtual, as it is not to be identified either with the reality of the text or with the individual disposition of the reader (p. 279).

Returning to the museum context, McLean & McEver (2004) characterize the exhibition process similarly as "a dialectic between the intentions of the presenter and the experiences of the spectator" (p. 193). This dialectic has only recently become visible, as heretofore the intentions of the presenter have been obscured and the presenter's identity ignored or invisible. In writing about the paradigm shift to meaning making in museums, Silverman (2004) outlines similar thinking in other fields. For example, she notes communication theorists no longer believe that communication is linear from one active party to a passive receiver, but "is a process in which meaning is jointly and actively constructed through interaction" (p. 234). Notably, communication scholars now see this meaning-making interaction as a negotiation of power and authority between communicants (Silverman, 2004). These variously described interactions, particularly an interaction in which power and authority move back and forth, relate in many ways to transactional theory, which characterizes the event between reader and text as a transaction, and provides the framework for analysis in this study because by extension, the performance event can be seen as a transaction.

In order to describe and define the formation and usage of meaning within the group, Taborsky (1990) has formulated a model of three realities: material, group and individual. This model informs discussion in this study of the meaning-making process.

Material reality, constituted by both actual objects and actions, "is never perceived in a direct sense, but only in a social, interpreted sense, as a system of signs, which develop meaning" (p. 55). Group reality refers to the agreed upon system of signs, which are understood by social consensus and establish the group as a discrete culture. "Group reality consists of an infrastructure which provides a frame in which discourse and interaction can take place, which in turn provides the group members with 'a particular way of viewing the world" (Taborsky citing Bakhtin, 1990, p. 55). Meaning is established within the group reality to communicate and maintain the group. When meaning occupies "a certain spatial and temporal area, the meaning is relatively stable and communicable" (Taborsky, 1990, p. 57). Questions remain of how stable a meaning can be across the contexts of geography and time.

While signs are seemingly stable, in the sense that they exist over time, as in the fact that we in the 21st century can read texts written by Shakespeare, the interpretation of signs varies even within a given culture. Taborsky suggests that these interpretations must be understood as "versions of one basic sign" (p. 57) and not another sign entirely. She provides the example of the sign, 'Raven', which brought to mind my own interpretation of a raven, which is co-mingled with an Inuit interpretation through my prior experience learning Inuit stories, which produces my individual version of the sign for Raven. This example introduces the challenge that museums face in presenting objects from one culture to another. There is a schism between groups that have entirely different material realities, and any signs that have been agreed upon within each group

may be unknown to the other. Addressing this challenge is the subject of much deliberation (Karp & Lavine, 1991; Karp, et al., 2006).

In this study, I liken the main subjects of each play performance to objects that could be listed as: Ben Franklin, the battle of Iwo Jima and its iconic image, coal mining, the Depression, and the Titanic. Each of these objects has held stable signs at some point in time, but these signs are changing with time and distance. The group reality in which their original signs were agreed upon has changed, and differences in individual realities and hence, interpretation about these signs can be seen in the data.

In thinking about Taborsky's model of realities as it relates to this study, I would posit another reality, specific for theatre reception, which is the reality of the performance. This is a virtual, intangible reality, like Iser's realization of a literary text. In theatre, a new reality is created by the performer and the spectator. Across an audience there may be several realities going on and the spectator and performer may not be aware of how different the realities can be. However varied the realities may be, the transaction nevertheless takes place between each audience member and the performers This reality holds slightly different meanings, in the same sense as activities in Batesonian play, which Schechner (2002) details. In play, humans and other animals have the ability to communicate that the actions being taken are not real and the anthropologist Gregory Bateson theorized that we do this through meta-communication. While we carry out one action, we indicate or frame play with another, such as wink or smirk, creating a new reality which says that the first action isn't real. In performance, the framing of the play is more elaborate, but I will extend discussion of this in my section on performance theory.

The Meaning-Making Paradigm

Debate on the definition of meaning has provided the backdrop for the paradigm shift from a cultural transmission-model of learning to a making-meaning model (e.g. Rounds & colleagues, 1999). This move opens up the possibilities for meaning and expands beyond the notion of one immutable truth to be transmitted to the visiting public with the acknowledgment of the museum's own role as interpreter, rather than guardian of knowledge (Silverman, 2004). The cultural transmission paradigm restricted museum practice to ensuring that exhibitions are designed "to make certain that everyone has gotten the facts right, that everyone knows the same things and shares the same conceptions of what is 'true'." (Rounds, 1999, p. 5). Evaluation of practice based on the cultural transmission paradigm was fairly straight forward in determining whether visitors understood the central message, or a single meaning transmitted from the museum to visitor. More troublesome is to evaluate for the meaning-making paradigm, which opens up the possibility of multiple understandings of an exhibition.

In this examination of the meaning-making paradigm, Rounds (1999) searched for a more open-ended conception of meaning than the limited correct interpretation in the old paradigm. He found in the writings of Weber, Geertz, Frankl, and Csikszentmihalyi & Rochberg-Halton a thread of deeper understanding that connects to the basic human need to attach meaning with their lives. These theorists from sociology, anthropology, psychiatry, and psychology concur that humans are always trying to construct meaning in their lives, and they do this in all the experiences they have, which by extension necessarily includes a visit to a museum. Rounds (1999) concludes that if visitors are in a

search for meaning that speaks to their lives, they are not as interested in the mere acquisition of facts, and exhibitions must offer more powerful experiences for exploring what he calls "deep meaning" (p. 6). One of the key foci of this study is how the special qualities of a museum performance can promote deep meaning to be made in the transactional space between performance and spectator.

Elevation of Education within Museums

In successive reports by the American Association of Museums (1969; 1984; 1992) education has been consistently established as a function of museums. This has marked a shift away from the dominant museum functions of collecting, conserving, and displaying objects (Alexander, 1979; Weil, 1990). While education of the public was a primary concern in the founding of many museums (Hein, 1998), registrars and curators as the authority and as keepers of objects dominated in practice with the power to choose and develop exhibit concepts (Anderson, 2004; McLean & McEver, 2004). Educators were brought in after the fact, when the exhibition plan and design were set, in order to add interpretive public or school programs. McLean & McEver (2004) detail the protracted struggle between curators and educators that has led to pendulum swings of practice, from object-based exhibitions with minimal interpretation of any kind to objectfree interactive environments. Experiential learning experiences became a goal (McLean & McEver, 2004). One of the implications of this movement toward education for the emergence of museum theatre is that inviting educators onto collaborative teams for exhibition development with curators, designers and planners opened up the door later to theatre professionals.

The elevation of education as a function of museums and application of the meaning-making paradigm has led to expanded investigations into the concept of museum learning. At the same time, impressions of who people are that visit museums are evolving too. How the view of visitors has changed can be seen in the development of visitor studies (Hein, 1998).

The visitor is now viewed as an active participant in his or her own learning. Rather than entering museums as blank slates ready for cultural transmission, visitors are now recognized as bringing their prior experience and knowledge, including misinformation and biases, to the visit. Illeris (2006) has posited that this formulation of visitors from passive to active, from people not responsible for their own learning, a general public that must be educated, to active constructors of their own learning experiences who recognize and are empowered to by their own abilities to learn, has opened up the possible meanings that can be created, shifting power from the museum to the visitor. But, Illeris (2006) counters, at the same time this construction of the audience assumes an active population who can navigate the educational offerings of a museum, which include performance. Passivity is devalued, and activity is assumed. This was true for this study. Based in the meaning-making paradigm, this study found active construction of meaning by spectators.

Changing views of meaning and of the visitor have expanded the notions of museum learning. The current terms used in museum literature to describe learning in a museum are "informal," "self-directed," "free-choice," and "life-long." These terms are meant to be an antithesis to the stereotype of school-based learning, which can be large,

formal, teacher-directed, and restricted by age. Outwardly, learning in a museum has distinct differences from learning in school. Learning in a museum is not necessarily linear (Leinhardt & Crowley, 2002), in that visitors can move through most museums in the direction and pace they choose. They are not following from one textbook chapter to another. Visitors are a more heterogeneous group in terms of age who bring a variety of experiences and prior learning to bear on their visits (Falk & Dierking, 2000), and intergenerational groups can learn together, but at different levels or from different perspectives. These external differences indicate clear distinctions in the process of learning in a museum, particularly the sociocultural aspect.

The definition of museum learning has broadened to include educational goals that go beyond content acquisition to include attitudinal, affective changes. Leinhardt & Crowley (2002) provide a vivid example of museum learning from their on-going research with the Museum Learning Collaborative. Pre-service teachers visited the Birmingham Civil Rights Institute in Birmingham, Alabama as part of a qualitative, naturalistic study. After viewing objects, especially the burned out shell of a Greyhound bus that represented one that was used by Freedom riders and attacked during the Civil Rights struggle, Leinhardt and Crowley (2002) contend these teachers exhibited changes in their cognition, as well as their socio-cultural identity. Mapping of their mental constructs of the civil rights era in interviews prior to their visit, and then following the visit, as well as in conversations recorded during the visit, revealed expanded conceptions of who played a part in the struggle for civil rights (Freedom riders were both black and white) and what threats existed for those who participated. As well, Leinhardt and

Crowley (2002) noted changes in self-perception for these pre-service teachers. Again, these changes were evident in conversation, as they discussed details and related the situation of the bus to themselves.

Another conceptual model of learning that relates to these more broadly defined educational goals is experiential learning theory. Described by Kolb (1984) as a continuous lifelong process, learning occurs when "conceptual bridges" are built "across life situations such as school and work" (p. 33). These bridges are built through the constant progression of experiences humans undergo in all areas of life, when conflicts between expectation and experience are encountered and resolved. According to Kolb (1984), "it is in this interplay between expectation and experience that learning occurs" (p. 28). These conflicts can be small or large, seemingly insignificant or profound. The important assumption in this conceptualization of learning is that there is always a prior experience to the current one, prior learning already established, which implies that "all learning is relearning" (p. 28). Experiential learning encompasses adaptive activities, such as problem solving, decision making, creativity, in the short and long-term, both in performance of a new activity and in development of adaptation to life's situations (Kolb, 1984).

In fact, like Rosenblatt (1978), Kolb refers to Dewey's use of the word *transaction* (ital. in orig.) to describe the relationship between the person and the environment in an experience. A transaction consists of "personal characteristics, environmental influences, and behavior" operating in "reciprocal determination, each factor influencing the others in an interlocking fashion" (Kolb, 1984, p. 36). This focus

parallels that of reader and text in transactional theory, the text providing the environment. In this study, the environment includes the museum and performance.

Research into learning in museums, or visitor studies, now generally utilizes a Vygotskian, sociocultural lens (Bartels & Hein, 2003) to examine the meaning made by visitors from their experience in museums. This lens, as well as that of the constructivist (Hein, 1998), concentrates on how visitors interact and converse before, during, and after a museum experience, or construct their own learning within the museum environment. At this point, museum staff and researchers acknowledge the authority of the individual's response to a museum's programs and exhibitions, and that this response is necessarily framed by each individual's prior experience and learning, as well as motivation and learning style. This study has done the same, capturing individual voices of response to a museum performance.

An essential goal of most museums is to grab visitors' attention, hold it for as long as possible, and in doing so, provoke a new or deeper understanding of some aspect of science, history, art, the natural world or human endeavor. Exhibits have been the primary means of communication to do this, with objects, labels, interactives, and increasingly, environments. A common problem, however, is that visitors do not slow down (Serrell, 1997), so that their attention is not grabbed, and no deeper understanding is gained. This is the challenge of a transient audience - they must first be stopped in their tracks in order to learn. A live human being, perhaps an actor dressed in period costume, is often one way of slowing visitors down. A scheduled performance in a theatre space provides an opportunity to stay still for a portion of one's visit. The spectacle of actors on

a stage within an exhibition might draw the visitor's attention to a previously unseen area. Performances have become another way of communicating with visitors (Hughes, 1998; LaVoie, 2003; Bridal, 2004).

By necessity then, arresting visitors' attention is a basic mandate for museum theatre. Research into museum theatre initially focused on this aspect – whether performances were attracting an audience. Having established that visitors will stop and watch a performance (Litwak & Cutting, 1996), a more fundamental question is what the nature of the response is when they do, which is the central question of this research. Most of the existent museum theatre research has investigated the quality of the experience in terms of learning.

Learning in Museum Theatre

In an analysis of theatre for pedagogic purposes (Barbacci, 2004), two distinct categories became apparent: theatre created solely to convey information; and theatre that is inspired from the contents of a discipline, but maintains its own "artistic expression." These categories, while more porous than absolute, are helpful in defining museum theatre. I would argue that museum theatre falls into both categories, or that it contains elements of both. In the first category would fall museum theatre that has evolved from science or historic craft demonstrations, with theatrical elements added to enhance the quality of the presentation. Period costuming of interpreters lent a sense of theatricality to historic sites. However, there exists disagreement over whether to call these practices theatre, especially in living history sites (Roth, 1998). Many interpreters are loathe to call themselves actors (Snow, 1993). Admittedly, there are lines to be drawn. When period

costuming is worn, but the interpreter adopts no character, this is called third-person interpretation (Roth, 1998). This practice lacks a basic element of theatre, and is therefore not a part of this first category. There is a wide array of practice in museums and historic/heritage sites that is called live interpretation, such as volunteers with interpretive carts, but only a portion of these practices would be considered museum theatre.

I maintain that this first category of museum theatre can be considered part of a very large umbrella of similar practice, but is distinct from the second category. This is an attempt to include a range of practice from non-theatrical though performative demonstrations or representations to full scale professional theatrical production that is part of museum theatre. This first level is beyond non-theatrical, but only just. It attempts to utilize theatre elements (Barbacci, 2004) such as lights, sound, character, and plot to contextualize isolated facts and in some cases, to create a spectacle. The use of theatre technology has increased more in science museums than outdoor sites due to issues of electrical power and authenticity. For example, it would generally be inappropriate to put a microphone on a wandering character. At its core are pedagogic objectives, such as transmitting the steps of an artistic process or components of natural phenomenon. Often, demonstrations in science museums have become more performative when educators have taken on the role of characters, e.g. Dr. Science, or added the use of puppetry.

As an example of museum theatre that has developed from this approach with its school programs, the Central Park Zoo in New York City has created fanciful characters such as Petunia Penguin, who will transform "your class into a team of Antarctic scientists," and rain forest explorer Jungle Jane and her puppet sidekick, Youcan the

Toucan, who take classes on a tropical adventure (Central Park Zoo, 2005). Here characters have been created to present didactic material, but they have also incorporated the transitional element of theatre, so that time and space can be re-imagined, enabling students to live through, as if they were explorers, the facets of a rain forest, or as if they were scientists, Antarctic scientific developments.

In the second category, museum theatre moves beyond didacticism to metaphor, so that, for example, a play about technological progress and the Titanic disaster becomes a representation of human hubris, while also conveying factual information, such as the inferiority of the steel at cold temperatures that was used in the hull. In this category, performances examine the social and ethical implications of a discipline, controversy, conflict, and the nature of humanity. Theatre such as this maintains its roots as pedagogy, while preserving and employing the full structure and potential artistic power of theatre. Learning goals move from acquisition of content to reflection or shifts in perspective or attitude.

Museum Theatre Research

Research into museum theatre has reflected shifts in museum visitor studies from gauging audience attraction to focusing on visitors' meaning making in response to a performance. The majority of extant literature in museum theatre represents evaluation research conducted by museum personnel, rather than independent research, which seeks to examine questions of feasibility and goal attainment. Almost all of prior research has been internal. Some have used quantitative methods such as short surveys and tracking, and some have used qualitative methods such as open-ended surveys and interviews.

Observation has been used in both methodologies. The Museum of Science in Boston, Massachusetts (Baum & Hughes, 2002) and the Minnesota History Center in St. Paul, Minnesota (Litwak & Cutting, 1996; Lanning, 2000) are two institutions that have conducted a number of such studies.

Resoundingly, visitors responded positively to pioneering museum theatre efforts (Munley, 1982/1993; Klein, 1988; Bicknell & Mazda, 1993; Hein, Lagarde & Price, 1986; Rubenstein & Needham, 1993). These evaluations found that theatre programs have the power to attract visitors (Hein et al. 1986; Bicknell & Mazda, 1993), as well as keep them watching. Of those who saw the National Museum of American History's play, Buyin' Freedom, 25 % stayed to ask questions of the actors (Munley, 1982/1993). Tracking visitors, Cuomo & Hein (1994) found that visitors stayed in an exhibition on bogs longer when the play was being performed, whether they appeared to be watching it or not. Later in follow-up phone interviews, 35 % of respondents mentioned remembering the play most clearly (Cuomo & Hein, 1994). Curiously, it was noted that not all of these participants sat and watched the whole performance. So, whether they were aware of the play as they visited the exhibition, or sat and watched the entire performance, the play itself became a part of their memory. Klein (1988) found that visitors were inspired to return to an exhibition following a play, and were observed discussing artifacts in relation to the play. This observation was echoed in Rubenstein and Needham (1993). Finally, in an evaluation of all its interpretive programming (volunteer carts and stage shows), the Minnesota History Center found that visitors were significantly more likely to stop at stage shows than carts (Litwak & Cutting, 1996).

In a large evaluation of its entire drama program, the Science Museum in London found that 83% of visitors surveyed said they spent more time in an exhibition because of a gallery character performance (Bicknell & Mazda, 1993). This study determined that children were highly attracted to performances, which had the effect of allowing a socially acceptable means of access for many adults. The Canadian Museum of Civilization underwent an evaluation of its drama program in 1992. With on-site surveys, interviews (with visitors and staff), observations, and file reviews, it attempted to assess both quantitatively and qualitatively the fundamental value of the program (Needham, 1999). Surveys were conducted with visitors who left performances, as well as those who stayed. Ninety-five percent of those surveyed felt that the live interpretation enhanced their visit, with 45 % specifying that the performances brought the museum or history to life (Needham, 1999).

Collectively, what is documented in these evaluations is positive response that translated into more time spent in a particular exhibit area, and by inference it can be posited, more time spent considering the subject of the exhibition. In a 1989 pre/post-test study of a random sample of 339 visitors in an exhibition called "Treasures of the Tarpits" at the Museum of Science in Boston, those who saw the play within the exhibition were significantly more likely to understand which animals were found in the tar pits, the climate, and a particular scientist's contribution to understanding the tar pits (Baum & Hughes, 2001). Studies such as this one document that in response to performances, visitor behavior changed in beneficial ways for learning purposes. People slowed down, re-examined, and conversed. Furthermore, in evaluations many visitors

also expressed a self-perception of learning (Bicknell & Mazda, 1993; Baum & Hughes, 2001; Malcolm-Davies, 2004; Needham, 1999). They felt they had learned. Whether this translates into long-term learning has not been established.

In a triangulated, qualitative study of 745 students from school groups in grades 6-12 who saw a play about the social and ethical implications about the Human Genome Project, Black and Goldowsky (1999) went beneath the surface of positive or negative response, investigating to what extent students might be able to reason about the implications of this scientific endeavor. They were also interested in how conflict between the characters in the play affected the students' experience. This study had a wider scope as a piece of research rather than pure evaluation. In an open-ended postperformance survey question, 87 % of the students were able to articulate how the Human Genome Project might affect their lives or the lives of others. This was a 59 % increase from the pre-performance survey. Connecting the science to personal experience was echoed in interviews with students. Reaction to the conflict in the play between a husband and wife was mostly positive, with a majority of students finding that it allowed for different perspectives to be heard. It also made it more realistic for some. The realism evoked through conflict provides a potential avenue for emotional response. If the students found the conflict believable, they might be more apt to identify with one of the characters and feel empathetic toward him or her. What Black and Goldowsky (1999) found was that gender played a role in which character these students related to: more female than male students agreed with and supported the wife in this performance, while male students favored the husband. It was not thought this finding suggests the

reinforcing of stereotypes, because the playwright had written the characters in ways that defied stereotyping. For example, the wife was a high-powered executive while the husband was laboratory scientist without much say in his work. While this finding is not necessarily what the creators of the performance intended, it indicates that the possibility of identification with different characters based on gender (and potentially other characteristics might be added to this) supports the postmodern construct of representing complexity and conflicting ideas instead of a singular, canonical construct.

Most recently, efforts to broaden the scope of research into museum theatre have taken place at the Centre for Applied Theatre Research [CATR] at the University of Manchester in the U.K., which has received funding for a three-stage project. Stages I and II have been completed, and Stage III is currently underway, the results of which will complement this study. The subsequent report from stages I and II, Seeing it for real (Jackson, Johnson, Leahy, & Walker, 2002), attempted to better articulate a comprehensive sense of what effectiveness might mean for museum theatre. Clear patterns of effectiveness emerged in their findings: both short- and long-term recall and understanding were enhanced; the dramatic narrative served as a means of organizing the information the museum presented; and students were able to relate personally and empathize with characters in the performances. In a subsequent journal article on this project by Jackson & Rees Leahy (2005), the findings are more fully developed, and it was acknowledged, were not conclusive because of so many variables. However, the implications of these findings could be profound. If spectators relate personally to characters in a performance they may experience empathy, which supports better recall.

However, Jackson & Rees Leahy (2005) raised a caveat of whether or not empathy narrows participants' view of a subject's bigger picture, e.g. Britain in World War Two. This question certainly needs further attention. Another implication in this study is that the narrative form of a performance may assist in people thinking about the content of a performance. It is intriguing to think that narrative might guide improved encoding (of memory) and lead to better recall and understanding.

These areas of interest remain, as CATR moves to finish the third and final phase of their research, having embarked on a project that includes case studies of museum theatre in a variety of disciplines with both students and independent groups of visitors (*see* www. manchester.ac.uk/plh).

Theories of Emotion and Affect

So far I have addressed meaning-making from the perspective of socio-cultural theory, how meaning is shaped by culture. There are also the internal heuristic processes that shape meaning. Previously, meaning-making had been thought to be entirely cognitive, but as we are learning through psychological and neuroscience research, the affective domain is equally important to how we learn and make meaning. In this section, I will situate and define affect and emotion and their importance in this study, and conclude by characterizing empathy as the vehicle for emotional response.

Affective learning is at the heart of museum theatre, and there is growing interest in affective learning in informal learning institutions such as museums, zoos and aquaria. Such institutions must make learning attractive because attendance to them is optional, in contrast to schools where attendance is compulsory. The affective domain centers on

feelings, emotions and attitudes. If an informal learning institution creates an emotionally-appealing, interesting, attractive learning environment, people will tend to make the choice to attend and in attending will find learning an enjoyable, intellectually and emotionally satisfying experience.

In their review of the literature, Meredith, Fortner & Mullins (1997) note speculation among theorists that museums are particularly suited to affective learning, more so than formal classrooms. Museums are free-choice environments, which allow personal motivation to guide behavior. However, few empirical studies have addressed this because of the difficulties in defining and measuring affective learning. Roberts (1990) wrote, "The role of affective modes of knowing in learning processes remains an elusive, fragmented area of study. Not only does research cross many disciplinary boundaries, but language about affect changes from one individual to the next" (p. 19). However, Falk & Dierking (2000) argue while museum personnel desire cognitive change to be the primary outcome, nevertheless, affective learning is so integral to the experience that it cannot be separated.

In a report on the role of affect in museum visits, Anderson & Roe (1993) observe that affect has been linked to learning in formal studies, though not generally in museums studies. These researchers interpreted affect in several ways: "visitor enjoyment of the museum experience, the development of affection toward an exhibit or an institution, and visitor likes and dislikes" (Anderson & Roe, 1993, p. 9). This was a multiple-site study that included science, natural history and children's museums. After several sites executed their studies, components of affect were identified: "value, curiosity, duty,

motivations, interests, feelings, social interaction, control and attitudes" (Anderson & Roe, 1993, p. 9). In trying to understand how affect plays a part in learning, they explored the mutual relationship of educational, personal and social factors in the visitor experience, in the same vein as Falk & Dierking's Interactive Experience Model, which they detail. What they found, which differed slightly depending on the exhibit type, was "learning in the museum setting often is as important to visitors as social and personal aspects, and sometimes more important" (Anderson & Roe, 1993, p. 11). At the same time, they also found that affect can been seen in each category they identified for visitors' motivations for visiting the museum: education (e.g. curious); duty (e.g. "good for kids"); entertainment; social (e.g. going as a family); and personal (e.g. "I remember..."), making affect central to their experience (Anderson & Roe, 1993, p. 16). In the present study, visitors were asked to select their primary expectations as either enjoyment or learning, but like Anderson & Roe's study, I found that affect was involved in both. People expressed a like for learning, and find learning enjoyable. This is echoed by Falk & Dierking (2000), who note that education and entertainment are complementary motivations for museum visitors, while at the same time recognizing that this does not explain fully the complexity of people's motivations to visit museums.

While affect can be seen in visitors' motivations for and responses to a museum visit, deeper analysis is necessary to understand more specifically how affect informs visitors' responses. While I will delineate emotions in the next section, I am placing emotions within the broader domain of affect. "An emotion is an affective state, but not

all affective states are emotions" (McLeod, 1991, ¶ 6). Affect includes moods and feelings, as well as attitudes, beliefs, tastes, appreciations, and preferences.

Defining emotion proves difficult. Since Plato and Aristotle, philosophers have been arguing over the definition of emotion and emotion's essential qualities. According to Fridja (2000), a fundamental demarcation lies between theories that view emotions as an intrapersonal state with physiological arousal, feelings, and activation of certain motor patterns, and theories that view emotions as an interpersonal function between the self and an object. Some approaches focus on one component, some a set of components, while some view emotions as states and others as processes (Scherer, 2000; Fridja, 2000). Though the stance taken necessarily determines in which camp a theory is based, I believe a sense of both positions provides a more comprehensive understanding of emotions. Emotions are both intra- and inter-personal, something that happens within a person, but which is activated as a function between self, or spectator, and object, or performance.

Scientists have been reluctant to address emotions, considering them less important than higher order cognitive functions such as perception, language, thinking, and learning (Buck, 2000). Behaviorism disregarded the study of emotions, due to their internal and therefore inaccessible nature. Emotions were difficult to objectify, or as LeDoux (2000) phrased it, "there was the dark cloud of subjectivity that hung over the topic of emotion" (p. 156). Additionally, LeDoux (2000) contends that the rise in cognitive science and its focus on computer processing analogies within human psychology led away from emotion. Nevertheless, emotions are now being studied in a

broad range of psychological fields. Recognized as functional in the evolutionary sense, as meaningful from a pragmatic perspective, and as a type of cognition, emotion has a new legitimacy (Buck, 2000).

Scherer (2000) offers a well-rounded explanation, combining the varying theoretical positions into a working definition:

Emotions are episodes of coordinated changes in several components (including at least neurophysiological activation, motor expression, and subjective feeling but possibly also action tendencies and cognitive processes) in response to external or internal events of major significance to the organism (p. 138-139).

In attempting to further refine what emotions are, the word *feeling* is separated as a part of the definition of emotion, rather than its equal in meaning. In other words, a feeling, the subjective experiential component, occurs during an emotional reaction (Scherer, 2000). Feelings are of interest in this study, as a conscious experiential aspect of affect that can be articulated by participants. LeDoux (2000) counsels, however, that conscious feeling is not necessary for an emotional reaction to occur. His work on fear primarily looks at unconscious processing mechanisms of emotional response. In the current study, by necessity only conscious emotional reaction, expressed as feelings, were articulated by subjects. The researcher, nevertheless, remained aware of the possibility for unconscious emotional reactions that may be revealed in behavior, which was reason to include observation of spectators during performance in the methodology of this study.

Continuing along this line of thinking, Dolan (2002) delineates emotions' unique traits as embodied and manifested in stereotypical physical and behavioral patterns of facial

expression, comportment, and autonomic arousal; they often do not follow conscious purpose; they are less encapsulated than other psychological states, seeming to affect virtually all aspects of cognition.

Two dimensions of emotion are: arousal (how exciting or calming something is), and valence (how positive or negative). Some models of emotion use as a gauge of emotion the degree of arousal elicited, from very little to very much. Others hold that the distinction between whether something is unpleasant or negative versus pleasant or positive is the principle agent of emotional feeling. As Scherer (2000) points out, valence is similar to the old behavioral orientation of approach and avoidance. Some studies have separated arousal from valence (Kensinger & Corkin, 2004), and studies by McGaugh and colleagues (1996) and Revelle & Loftus (1992) focus solely on arousal. A negative response may still be remembered clearly, and in some instances, perhaps more clearly than a positive response. This means that regardless of the reason for negative response, whether about the content or the form of the performance, it could be recalled better than if the response was neutral, or in some cases, positive.

Whether unconscious or conscious, emotions are part of an internal appraisal system by which humans make sense of the world around them. Several theories from cognitive psychology focus on defining emotions as part of human beings' biological system for dealing with external stimuli in relation to internal goals, not the least of which is survival (Bower, 1992; Oatley & Nundy, 1996; Lazarus, 1991). Appraisal theories assert that emotions come about when the system translates its concerns into goal-oriented action, and the action's outcome is appraised a success or failure. Appraisal

can be automatic, quick, and unconscious, as well as conscious and deliberate (Fridja, 1986; Lazarus, 1991). In this process, emotions can change priorities and consequent actions.

Furthermore, emotions are essential to our full range of cognitive abilities. Damasio (1994) has shown that in judgment and decision-making, emotional input is necessary for a balanced, sound result. In patients with damage to the amygdala, a small area located in the temporal lobe (Hamann, Ely, Hoffman, & Kilts, 2002) considered to be the emotional center of the brain, intelligence was maintained, but these patients' ability to function in their own best interests was impaired (Damasio, 1994). For example, Damasio detailed a number of cases where patients with brain damage showed no obvious signs of cognitive impairment, but were still unable to make good decisions or function successfully in their lives. With further testing, it was discovered there was damage to the amygdala, or that communication from the amygdala was absent. One man was unable to do simple tasks like make appointments without the critical emotional input from his brain telling him the relative importance of his various commitments (Damasio, 1994). Also, Nussbaum (2001) details specific qualities of emotions, "their aboutness, their intentionality, their basis in beliefs, their connection with evaluation," (p. 33) that indicate shared qualities with cognition.

LeDoux (1992) found the response route of fear moved quickly and directly from stimuli to the amygdala (via the thalamus). Initially, the amygdala receives only a minimal representation of the stimulus, while a more accurate representation via cortical processing follows. The ability to witness the neural organization of an emotional

response (LeDoux, 1992) confirmed the notion held by some theorists (Lazarus, 1991; Fridja, 1996) that humans respond to the emotional significance of a stimulus unconsciously first, and later may have conscious awareness (Buck, 2000). This study attempted to recognize both conscious and unconscious responses. Conscious expressions of emotions were studied through participant's verbal expressions, and potentially unconscious responses such as facial expression, physical behavior, and sounds were studied through observation.

The theoretical divide between emotion and cognition is diminishing in more than just neuroscience. In education, theorists such as Vygotsky and Bartlett, father of schema theory, have long decried the separation of affect and emotion (Fleckenstein, 1991). It has only become more evident how the two are similar and interactive, which has been noted by museum theorists Falk & Dierking (2000) and others. The emotional system, like the cognitive system, processes incoming information, which it can do on both a lower, automatic level and a higher, more cognitively-influenced level. Neuropsychological theories of emotion assume a hierarchical organization to the emotional system, which shows the relationship between the emotional and cognitive systems.

(1) Emotion must be considered a nonhomogenous, hierarchically organized, multicomponent adaptive system. (2) This system has partly changed its nature during phylogenetic evolution because it originally had the functions of an automatic emergency system but later developed more and more important links with the propositional cognitive system. (3) Behavioral patterns included under the heading "emotion" span, accordingly, from a small set of hard-wired survival-

related behavioral schemata, mainly related to social interactions, to a large number of learned complex behavioral patterns, highly integrated with the cognitive system. (Gianotti, 2000, p. 224-5)

Emotions are a powerful influence on the health and well being of human beings, assisting in survival, quickly providing basic information and focusing attention, and at higher levels processing information with cognitive input, leading to behavioral patterns observable and familiar. Non-traumatic levels of emotional arousal work with, rather than against or in parallel to, cognition (Damasio, 1994; McGaugh, 2003). In fact, cognition without emotional input can be impaired, as I detailed in the previous section. This goes against prior conventional wisdom, which began with Descartes' separation of reason and emotion (Damasio, 1994) and has influenced thinking up to the present day (Nussbaum, 2001).

As stated previously, museums are places of memory and learning. Traditionally, however, museums have not been places that attempted to engage visitors' emotions (Strand, 1993). But as I detailed earlier in this section, there has been growing recognition within the museum community that emotions play a part in visitors' learning (Franco, 1994; Marsh, 1996; Hooper-Greenhill, Dodd, Moussouri, Jones, Pickford, Herman, Morrison, Vincent, & Toon, 2003; LaVoie, 2003). Performance presents museums with a feasible and effective method by which to engage both visitors' emotions and cognitive function. By what mechanisms does a theatre performance stir up audiences' emotions? Empathy is one emotional vehicle.

Empathy as vehicle for emotions

Following theatre theory, one of the fundamental tenets of museum theatre is a belief in the significance of empathy. In a study of visitor response to historical characters, Franco (1994) found evidence of empathetic identification in visitors who interacted with characters from the past. Such studies have supported the notion that if a performance can elicit empathy in spectators, it opens the door to caring about the content of the show. And if spectators' emotions can be engaged through empathy, this can lead to learning.

To be able to empathize, to inhabit temporarily the thought processes of another, is at the root of drama. It is a recursive process: the actor's job is to imagine living "as if" (Wooster, 2004) in a world different than one's own and identifying emotionally "as if" another, which in turn, becomes part of the spectator's process, to empathize with the characters on stage and stand in their shoes. Identification, when the spectator imagines him/herself to be the character played by the actor, is very closely related to empathy and is considered an aspect of empathy in this section. Because empathy involves understanding how other people feel, it opens the door to other emotions and serves as a vehicle for emotional transference rather than as an emotion itself. As a psychological process it is not unique to theatre. People are empathetic in any number of circumstances. It may be said, however, that performance utilizes knowledge of the empathic process for its efficacy. This view is not without detractors.

Foremost is Brecht (1965) who famously disagreed with this Aristotelian foundation, rejecting it by declaring that, "Empathy is not the sole source of emotions at

art's disposal" (p. 105). He believed in the Cartesian need to separate emotion from reason, that emotion saps the spectators' impulse toward political action and impedes learning. He also believed that spectators' emotions would lead them to believe what they saw on stage as actual reality, and not staged reality. Current understanding of the interplay of cognition and emotion suggests that Brecht was mistaken in his estimation of the influence of emotions on spectators' cognitive abilities, and in fact, that empathy has the opposite effect. A second concern about empathy comes from Jackson & Rees Leahy (2005) who caution that empathy might prove paradoxical, in narrowing spectators' view of a subject rather than leading them to connect from the particular of the character's situation to the more universal of their relationship to a larger context. I address this caution in my findings chapter with the category Play Message.

In the field of psychology, empathy is defined variously as the ability to perceive accurately how another person is feeling (Levenson & Ruef, 1992), or a vicarious affective response (Feshbach & Roe, 1968). Duan (2000) distinguishes intellectual empathy, the extent to which the observer takes the target person's perspective, and empathetic emotion, the extent to which the observer feels the target emotions. Rather than creating two types of empathy, Duan illustrates the dual nature of empathy, as a process that is both cognitive and affective. I found Nussbaum's (2001) definition of empathy as an "imaginative reconstruction of another person's experience" (p. 302) applies aptly to theatre by highlighting the necessity of imagination in the processing of empathy. In an essay on empathy and theatre, Krasner (2006) also underscores the fundamental role of imagination in persuading our emotions "to accept fiction as

potentially actual (ital. in orig.)" (p. 264). For Krasner, imagination leads to empathy, which leads to belief, though not in the same way that we believe in what we see offstage. The spectator believes in the fiction, while also maintaining awareness of its special place in reality, a sort of "higher order belief", as Feagin has proposed (Qtd. in Krasner, 2006). I suggest that such a higher order of belief is necessary to create a liminal (Turner, 1982) reality, a virtual space in between the reality of the performance and the spectator.

Feagin's higher order belief can also compared to a cognitive perspective on spectator reception. The spectator's abilities and contributions in the performance event have become a topic for scientific study. One of the areas of study is how spectators are not confused by the presentation of an actor playing a character, even outside a proscenium arch. They can see double. This relates to the notion of frames and Batesonian play, but is now being understood and interpreted through cognitive science. In a wide-ranging essay Bruce McConachie (2007) proposes that performance theorists look to falsifiable theories in science to understand audience response. One of the first he details is the theory of conceptual blending, developed by Fauconnier & Turner (2002).

This theory purports that people constantly blend cognitive categories or concepts and then un-blend them to get a sense of what they are doing. Cognitive concepts are like schemata, broad representations of concepts like blue, or fast, or furniture. Fauconnier & Turner (2002) cite evidence that these mental concepts gain neuronal structure in the mind, which is how spectators can see double without thinking about it. To illustrate their point, they use the example of how people can blend various concepts like "actor,"

"identity" and "character" (McConachie, 2007, p. 559) to create a new concept: the actor/character. In doing so, people temporarily put aside the knowledge that actors live outside their role-playing, and that the character does not live outside the performance. This can be seen in young children when they express the dawning awareness that the person before them may not really be the character but an actor playing a character (Jackson, Johnson, Leahy & Walker, 2002). Comments from spectators in the present study articulated a sense of seeing double in performances. In several extended comments, participants moved back and forth, dynamically and for the most part unconsciously, between describing the actor's actions and those of the character.

Zillmann (1994) detailed various empathy theories in terms of the mechanisms of emotional involvement they induce with spectators of live and cinematic performance. Empathy is defined as both reflexive and reflective responses to another individual's emotional experiences with recognition by the spectator of "feeling with or feeling for these others" (Zillmann, 1994, p. 40). According to the innate ability position, this is part of what it is to be human. Zillmann (1994) notes that at a very basic level, human beings want to hear the stories of others, to follow the fortunes of others, even with the knowledge that their own fortunes will not change in the process. Rather than Duan's two-sided empathy, he offers a taxonomy of three different ways in which empathy is processed: the innate, reflexive model (motor mimicry); putting oneself in another's place to understand another's experiential state (the perspective taking or role taking model); and the learning-theoretical approach (affective/empathic reactivity).

The first category is motor mimicry and is the most obvious form of empathy, as it is observable in postural and gestural expressions. Zillmann (1994) cites a study in which the audience swayed forward as they watched an actor straining to reach something, and part of Lipp's theory of empathy, which is the "assumed capacity of emotional expression, especially facial expression, to produce affective states" (p. 41). There are many instances of motor mimicry that occur in daily life. If someone yawns, an observer will yawn. To see someone wince in pain causes an observer to wince. Much has been written about infant behavior mimicking another crying baby, or smile at the sight of a smiling caregiver (see Gordon, 1998; Vreeke & van de Mark, 2003). These behaviors are easily transferable to the performance situation, where actors' behavior informs spectators'. Gordon (1998) declared this behavior "facial empathy," (p. 167) which creates a sort of contagion of emotions, in which people can "catch" each other's emotional states. But Gordon points out that this kind of transfer of emotions is not necessarily about anything more than an immediate response to another's physical state. It is non-cognitive, in the sense of Duan's empathetic emotion.

Gordon (1998) describes another kind of contagion created through human being's "gaze-tracking response" (p. 167), in which we will automatically turn our gaze in the direction that another is looking to determine the source of their facial expression. This is so automatic a response that children have made a game of quickly looking at something, causing another person to follow their gaze, to which they taunt, *Made you look!* Children will monitor their parent's reaction to events in order to know how to react themselves. This is a key empathetic response for spectators of theatre performance, as

they are not only tracking the gaze of the performer, but also the gaze of their fellow spectators.

This is more important in museum theatre than in traditional theatre because spectators come upon performances by surprise rather than by intention, and when they do, they look at others around them watching the performance. If people are watching quietly and intently, this opens the way for others to behave similarly, to join in watching. As I mentioned, children often look to a parent's gaze and follow the parental accompanying behavior. In the London Science Museum's study (Bicknell & Mazda, 1993) the opposite was found to be the case. Parents used their children's gaze to allow them access to performances that they said otherwise they were hesitant about watching (Bickness & Mazda, 1993). In effect, they simulated their children's engaged gaze.

Zillmann's second category of empathy, perspective taking or role-taking model, is when the individual takes on the psychological perspective of another. In a performance, the spectator imagines what it is to deal with the actions of the performance in the role of the character.

In the third category, the learning-theoretical approach, Zillmann (1994) cites the work of Humphrey, who developed a conditioning paradigm for why, "affect-inducing stimuli for self and for others are often very similar" (p. 41). Humphrey explained that the act of seeing yourself cut your own finger is almost the same as seeing someone else cut their finger.

This position has been questioned by various theorists. Reflecting on emotion evoked in film spectators, Tan (1996) interrogates the authenticity of such responses, as

"viewers know full well that what they are seeing is a fictional world created by an artifact" (p. 2), and therefore, such emotions lack genuineness. Ultimately Tan (1996) proposes that it is the relationship between the context of the feeling evoked through a cinematic experience and similar experiences one could have in everyday life that might be used to assess the realness of the emotion. The question is whether the repulsion a spectator could feel in response to a character in a play proposing to clone himself several times with different surrogate-mothers is how this same spectator would feel if presented with a real person suggesting a similar plan. This is not a comparison of what the actors feel on stage with what the spectator feels, but a conjecture of whether the spectator would have the same emotional response to a virtual versus a real situation. Tan's position questions whether empathy truly allows the spectator into such a virtual scenario, while Humphrey maintains that response to the real and the virtual or vicarious are the same.

Humphrey's position been substantiated by the discovery of mirror neurons by Italian scientists, led by Giacomo Rizzolatti, who were researching motor neurons in macaque monkeys. They noticed that the same group of neurons in the brain of a monkey fired when the monkey watched a male scientist bring a peanut to his mouth, or in another instance, licked an ice cream cone, as when the same monkey brought a peanut to its own mouth, or licked an ice cream cone. As reported in the *New York Times*, "The monkey brain contains a special class of cells, called mirror neurons, that fire when the animal sees or hears an action and when the animal carries out the same action on its own" (Blakeslee, 2006, ¶ 4). Further research has indicated smarter, more flexible and

more highly evolved mirror neurons in humans (Rizzolatti, 2005). When humans watch something mirror neurons simulate that action in the brain. Rizzolatti & Craighero (2004) have suggested that the function of mirror neurons is for imitation, intention, understanding, and empathy, which is how this scientific discovery connects back to Humphrey's conception of empathy, and by my extension, theatre.

It provides a neurological basis for believing that people watching simulated action, such as theatre, can understand that action, and even the intention within the actions they see. From this development, theatre theorist Bruce McConachie (2007) makes the jump, and it appears obvious, that spectators mirror the actions of those they see in a performance, making it clear that "cognitive imitation is a crucial part of spectatorship" (p. 565).

The position that empathetic connection is automatic and assists in understanding others is further substantiated by the work of Niedenthal, Barsalou, Ric, and Krauth-Gruber (2005). They looked at the collective evidence for how people embody, or physically manifest, the emotions of others to the point of being able re-create those emotions in themselves. Niedenthal and colleagues report that studies support the following four claims:

- 1. Individuals embody other people's emotional behavior
- 2. Embodied emotions produce corresponding subjective emotional states in the individual
- Imagining other people and events also produces embodied emotions and corresponding feelings, and

4. Embodied emotions mediate cognitive responses (Niedenthal et al., 2005)

These four claims were verified for real or fictitious situations, and were found to be highly automatic. Together with Gordon's simulation theory and studies of mirror neurons, Niedenthal et al. (2005) lends credence to the idea that the spectator can read an actor/characters' intentions and emotions, and furthermore, can embody those emotions, and by doing so, produce the emotions in themselves. They each suggest that the reason for doing so is to learn about the world socially, via other people, through our emotional pathways.

Theatre/Performance Theory

Theatre and performance theories overlap considerably, however, they differ in general focus: theatre theory focuses generally on aesthetic creations on stages and in theatre while performance studies has a larger scope, focusing on performances anywhere, with or without aesthetic purpose. Museum theatre therefore holds potential interest for both fields of inquiry, because it is sometime performed on a stage, but very often is not. Sometimes it clearly looks like theatre, but there are times when visitors might be surprised to find themselves as part of a performance. The emergence of performance theory, with its focus on more improvisational performances in nontraditional spaces and contexts, contrasts with the traditional theatrical focus of performance of fixed texts in traditional performance spaces (Bennett, 1997), Therefore, because museum theatre can take place on stages and in non-traditional spaces, both theatre and performance theory inform this study.

From the perspective of theatre theory, we understand that the illusion of theatre is formed when the spectators accept the artistic creation before them as real, if temporary. Or not real, as in Bateson's sense of play, in which it is agreed by all participants that what is taking place is not real. That is, Bateson (2004/1955) studied meta-communication between monkeys, which showed that they exchanged signals that told each other that they were playing. These signals allowed them to engage in actions that looked like combat, like biting, but because they were playing, were not combat. Because they were playing, the bite was not fully carried out and did not hurt. Bateson phrased this notion of play this way: "These actions in which we now engage do not denote what those actions for which they stand would denote" (2004, p. 122). The normal rules of behavior are suspended in the play frame. Likewise, in the theatre it is agreed that the murder spectators are witness to is not really a murder, and therefore is allowed to happen. In doing so, real murder can be contemplated. Bateson's ideas have informed many fields of inquiry, including performance theory (Schechner, 2002). The idea of play is prevalent in defining theatre, as in Sauter's (2000) observation: "Theatre becomes theatre by being an event in which two partners engage in a playful relationship (p. 27). Naturalistic theatre is thought to reconstruct the illusion of reality through the representation of familiar, recognizable settings and objects placed within the frame of a proscenium arch (Pavis, 1998). These are of course culturally situated and problems can arise when intercultural productions present unfamiliar signs (Grady & Zarrilli, 1994). It is imagined there is a "fourth wall" between the stage and the audience, allowing the audience to be privy to the actions of the world of the stage without being a part of it.

Freud articulated how illusion provides pleasure and safety for the spectator:

"Accordingly, [the spectator's] pleasure is based on an illusion; that is to say, his suffering is mitigated by the certainty that, firstly, it is someone other than himself who is acting and suffering on stage, and secondly, that after all it is only a game, which can threaten no damage to his personal security" (Pavis, 1998, p. 179). Theatre provides a safe place in which to explore ideas and emotions that might otherwise be too difficult to approach. The creation of this parallel illusionary space is not merely recreational; it can be functional. Borrowing from film theory, "fictions allow us to exercise our capacities for mental stimulation, and thus have adaptive significance" (Plantinga & Smith, 1999, p. 7).

However, there is no formula for illusion. It can be achieved by various theatrical conventions. Museum Theatre does not necessarily utilize naturalistic conventions, instead often employing a more bare-bones approach to space, allied to Grotowski's (1968) conception of poor theatre. Focus is on the actor-audience relationship, rather than sets or lighting. These are aesthetic, as well as pragmatic decisions. The audience is asked to imagine the setting. Sets are often part of an exhibition. These can sometimes be fairly elaborate, but rarely do they represent naturalistic sets. There may be suggestions to a familiar reality, such as a hanging window, or a table and chairs, or a coffee pot with coffee brewing. However, these are isolated items on a bare stage. In other instances, historic sites or houses serve as set for museum theatre.

Spectators identify such non-human elements based on their schema for each, so that they can identify among other objects, a location or an historic time, to achieve

illusion. In terms of time, the spectator must also be able to make sense of temporal relations and furthermore how temporal relations (Hogan, 2003) affect the action of the performance. There is very little time for museum theatre, which is necessarily brief, to "create a world of its own; most of the time it relies on signs and symbols that suggest that world" (Beckerman, 1979, p. 139). In one play about astrophysics, the spectator must identify the setting of a library by noting the configuration of two tables facing one another, the sometimes hushed tones of the actors, and the occasional interruption of a librarian's voice-recorded "Ssshhhh!," and the actors' reaction of going back to hushed tones. The audience is left to fill in the gaps through their imagination, utilizing their schema, in this case for libraries.

These gaps in the setting evoke Iser's (1995) notion of blanks in a text. Here again, literary constructs inform the performance context. It is neither possible, nor desirable, for an author to write down all that the reader is to understand, which would be didactic. It is the same with performance, where it would be tedious and off-putting to dogmatically spell out the intentions of each action. There are necessary and often deliberate blanks left in any text, allowing room for the creativity of the reader in the construction of meaning. What Iser (1995) proposed is that text offers "schematized aspects" (p. 21) that readers then develop as they produce and realize the work of art. The reader or spectator cannot know exactly what an author or playwright intends with the text, and these blanks within the text provide opportunities for individual interpretation. In essence, unlike a social situation where two people can dynamically question and probe each other for meaning, the reader negotiates with the author via the text with its

inherent blanks. It is the same within a performance, where the audience must negotiate meaning with the playwright via the performance text, which includes the director and actor(s). In this study, there were a number of creative gaps left open to the audience watching *Unsinkable? Unthinkable!*. This play, presented on a bare stage with a minimum of props, allowed participants to imagine, if they missed the initial introduction, the narrator of the story's identity. Determining she was not human from lines of the play, one participant imagined her as a god-like entity due to her white clothing. Also, there were two strands of narrative arching through the script – the story of the Titanic disaster, and the story of how humans handle technology. In a small study with the play previously (Baum & Hughes, 2002), it happened that some participants picked up one, some the other, and some noted both. There were gaps enough to provide freedom to do so.

Lighting and sound effects are employed to suggest space or movement or mood, and add to the illusion. Media is brought to bear in the form of images that play during performances. A technological advance that serves illusion is a remote computer system, developed by Mike Alexander at the Museum of Science, Boston, that allows actors to change light and sound effects via a hidden remote control in their costume. This way they are in control of sometimes complex and startling effects, which look seamlessly timed to the spectator.

Museum theatre generally does not employ the "fourth wall" convention. In most productions, the fourth wall is broken to allow the actors in role to speak directly to audiences. Breaking the fourth wall, a practice employed by Brecht, challenges the

maintenance of illusion without destroying it. It asks more of the spectator, who must agree in some cases to interact with the actor in role. Audience participation is a common feature of museum theatre. Sometimes participation simply involves conversing with a character or doing a simple task for the performer. Sometimes participation is more cerebral and involves audience debate and discussion. Occasionally, participation is done with by the audience as a group. For instance, in a play with a scene of Brazilian rubber tappers standing up against cattle ranchers with weapons, the audience was assumed to be rubber tappers and asked to shout in unison "Viva Amazonia". Whatever the participatory element, it activates the spectator, allowing for more potential exchange and negotiation in this communication process. When the spectator is encouraged to interact, and in a sense, become part of the performance, museum theatre resembles theatre-ineducation and process drama, both of which encourage interactions between actor/teacher and audience to add to the dramatic experience, Additionally, museum theatre spectators often view the process of creating the illusion by watching actors set their staging area, props and costume pieces, as well as getting into character. Here performers in museum theatre become text, in the sense that Schechner, as described in Pelias & VanOosting (1987), has articulated because audience members witness the performer move into and out of character before them, allowing spectators access to the performers' personal identity, as well as character. This happens again at the end of shows, when actors interact with spectators out of role. This movement into and out of illusion is necessary for the spectator to clearly understand and reflect on the process of the performance. There is no attempt to fool anyone into believing in the stage illusion to be reality

because of the challenge of museums to make sure that visitors engage with the information being presented (in an attractive form through theatre) but at the same time, be aware of how theatre is an artificial construct as a vehicle for the presentation of information. In other words, museum personnel want visitors to be aware of how the genre of information presentation influences the perception of that information. Fooling visitors into thinking illusion is reality is a charge that has been aimed at the practice of living history (Stover, 1989). Composed of the large life-like stage sets of historic sites, living history museums face a particular theatrical challenge – to clearly frame the event as performance. Jackson & Rees Leahy (2005) address the several layers of framing to a museum theatre performance:

"First, the event takes place within an external, or cultural, frame that provides (usually) an institutional context within which the event will be read and understood – here, that of the museum itself. Secondly, there is the performative frame – that which marks out the theatre event itself as theatre and signals where and how the audience will position itself and act (e.g. via the formal seating or 'promenade' setting, its proscenium or in-the-round staging, use of lighting). And finally there are a number of internal frames within the performance that establish the kinds of dramatic conventions that will operate: they constitute the framing devices used to signal shifts of time, place, character, relationship with the audience, etc." (p. 310).

The very possibility of performing history at all is called into question by many theorists. For those performing living history, Kershaw (1999) rightly points out that it is the "seamlessness of simulation that offers its greatest challenge to the possibility of meaningful history in post-modernity" (p. 169). Because living history lacks the visible frame of theatre in an attempt to appear as real as possible, it buries or avoids the instability of history now recognized through postmodernity. Conversely, the theatrical frame opens up the possibilities for creating meaningful history by its ability to problematize it. Allowing the exploration of questions regarding how we know what we know is part of theatre's power, but can only be accessed by recognition that an activity is theatre, and not something else, such as simulated reality. Despite his reservations, Kershaw (1999) acknowledges the impact of first-person interpretation:

Forfeiting third-person omniscience for the partiality of the first person seems a small price to pay, for what is lost in historical comprehensiveness is gained in immediacy and detail, in the completeness and penetrability of a small virtual world (p. 194).

From exploration of the role of visitors thus far, I have conceptualized an active spectator who makes meaning in response to a performance in a museum, rather than a passive spectator who is given a set meaning from the performance. That perception is supported by contemporary reception theory, which highlights the centrality of the spectator's role in the theatrical event (Tulloch, 2005; Bennett, 1997). As in museums where the meaning-making of the visitor has become as significant as the power of the

object, so the prominence of the spectator's construction of meaning has become as significant as the power of original text. The emergence of the spectator has come about concurrent with performance studies and development toward the democratization of theatre, so that theatre "no longer remains the sole domain of the educated and economically able few" (Bennett, 1997, p. 10).

In the last section, I detail the tenets of transactional theory (Rosenblatt, 1978), which made prominent the reader in any transaction with a text and end with how this has influenced my development of a theoretical model for spectator response.

Transactional Theory

Though separate and distinct activities, viewing an object in a museum, reading a literary text, and seeing a performance constitute complementary meaning-making processes. Charting the parallels, just as meaning cannot be found solely within an object, but must be realized in the construction of interpretation by a museum visitor, meaning in a literary text is found in a virtual space between reader and sentences, which is similar to the virtual space created between what happens on a stage (or other space) and the spectator's imagination. The meaning made in any of these acts between human and object, text or performance is shaped by what the human brings to the interaction (culture, experience, psychology, etc.) and what is present in the object (physical qualities, provenance), and text (sentence structure, horizon of expectations of the author), and finally performance (the performance text, actor, lighting/sound/visual effects, context).

Rosenblatt (1978) cautions that in writing about the reading process, we risk oversimplifying its amazing complexity. Though it is necessary to isolate its various parts in order to understand it, it must be remembered that these parts never function in isolation

Prior to the paradigmatic shift in museology, changes occurred in literary theory and criticism regarding how meaning is considered and wherein it resides. Previously, the New Critics and other theorists focused on the author's intent and the text itself. The reader was not considered significant to the meaning making process. Reader-response theories and transactional theory grew out of recognition that New Criticism could not completely explain how texts are understood—while obviously the text is significant, it became obvious that readers' responses also carry significance. Two highly-educated (in the canon of a particular text) readers can construct different meanings in a given text—and those different meanings can be supported by text structure and/or informational features. Criticism of reader-response and transactional theory has evolved primarily from formalist critics such as Wimsatt and Beardsley (1954).

In laying out the tenets of transactional theory, there are several major points to bear in mind, but the overarching philosophic concept, which separates it from reader-response theories, focuses on reciprocity between reader and text. It is an understanding that the observer becomes part of what is observed. Influenced by post-Einsteinian awareness, this thought germinated in John Dewey and Arthur F. Bentley's writing in *Knowing and the Known* (1949), and Rosenblatt (1978) borrowed the term "transaction" from it. It is in this transaction that both reader and text not only are realized, but are

shaped and changed by each other. The actual text remains still and dormant, but the text as meaning is what is shaped and changed by the reader, and the reader is in turn shaped and changed by this process of constructing meaning. This is an extension of the notion of interaction, when two entities meet, but do not necessarily change each other. In reader response theory, the text is realized in the act of reading. Where before there were marks on a page, when a reader reads the text, the meaning of the text is transformed. A poem or other literary work "is what happens when the text is brought into the reader's mind and the words begin to function symbolically, evoking, in the transaction, images, emotions, and concepts" (Probst, 1987, ¶ 2). Iser (1972) also theorized the text is realized as a literary work in the act of reading. But in most reader-response theory, emphasis is on the text, while in transactional theory the reader takes an equal focus. Rosenblatt insists on the equal importance of text and reader. The reader becomes a reader "by virtue of his activity in relation to a text" (Rosenblatt, 1978, p. 18). The notion of reciprocity is, therefore, at the center of transactional theory. Both the reader and the text are realized in the reading event and in the transaction of making meaning, what is constructed is both unique and transformative to each reader.

Another important facet of transactional theory, alluded to already, is the derivation of meaning through the transaction. The text presents itself for consideration to the reader, and the reader brings his or her past experiences and present attention to the text, which creates a unique literary experience for each particular reader with each particular text. The contexts of time and place additionally contribute to the uniqueness of each reading, even with the same reader and text. For example, reading a text at twenty

will be a very different experience than reading the same text at sixty, based not only on a difference in age but in historical milieu, which I will soon address in more depth.

Rosenblatt (1978) describes the steps of meaning making in the reading event that establish its uniqueness:

The reader's attention to the text activates certain elements in his past experience – external reference, internal response – that have become linked with the verbal symbols. Meaning will emerge from a network of relationships among the things symbolized *as he senses them* [ital. in orig.]. The symbols point to these sensations, images, objects, ideas, relationships, with the particular associations or feeling-tones created by his past experience with them in actual life or in literature. The selection and organization of responses to some degree hinge on the assumptions, the expectations, or sense of possible structures, that he brings out of the stream of his life. Thus built into the raw material of the literary process itself is the particular world of the reader. (p. 11).

Rosenblatt stresses that the evocation of a poem, or play, or novel out of a text, "must be an active, self-ordering and self-correcting process" (1978, p. 11) by the reader, and that it is the text that leads the reader toward this self-corrective process. The text is open to the process of interpretation, but in Rosenblatt's term, constrains at the same time. It is open because of what the reader brings to the transaction, which will influence what meaning is made from it. It is constrained in that as the reader reads, textual

evidence will confirm or challenge interpretive hypotheses the reader creates while constructing meaning. Like Iser, Rosenblatt believed words on a page leave much room for interpretation. The reader must bring more than a literal understanding of words. Readers bring themselves to the reading experience. Iser (1978) concurs: "The significance of the work…does not lie in the meaning sealed within the text, but in the fact that the meaning brings out what had been previously sealed within us (p. 157).

This is a key aspect to the transactional process of reading. "The reader is active, and draws upon past experiences with verbal symbols, selecting from various alternative referents that occur to him" (1978, p. 10). The text serves as a "stimulus that activates elements of the reader's past experience – both with literature and with life," as well as serving as a "blueprint, a guide for selecting, rejecting, and ordering of what is being called forth," and in this way, "regulates what shall be held in the forefront of the reader's attention" (Rosenblatt, 1978, p. 11).

So the text simultaneously arouses and restricts any potential meaning. In this way, while differences in interpretation are expected and acceptable, the merit of an interpretation can still be considered in relation to the text. Rosenblatt (1978) offers the word "home" as an example of a verbal symbol that refers to a publicly accepted code, while also holding "special feeling-tone and significance" for the individual (p. 53). There cannot be one interpretation and even an author's statement of intent is not definitive. But any hypothetical interpretation must be weighed against the evidence in the text. The word, "home" could refer to a variety of physical structures as well as emotional concepts (such as a starting place in life or a place for which one longs). In

using this word, the author is likely to be banking on the reader coming up with this type of meaning-construct rather than other concepts (e.g., nickel, bicuspid, or carburetor). In any case, subsequent references will confirm or challenge a reader's construct. With this principle, Rosenblatt steers transactional theory clear of relativism and subjectivity in meaning making.

Literary works are open to interpretation with restraints, and one of the ways in which this is possible is through gaps or blanks in the text, which Iser wrote about extensively. Iser (1978) asserts that in any process of communicative interaction between people indeterminate blanks form and are modified "by the imbalance inherent in dyadic interactions, as well as that between text and reader" (p. 167). In a dyadic interaction, these blanks can be discussed and balance can be restored, but this is not the case between reader and text. In reading, "balance can only be attained if the gaps are filled," (p. 167) by the reader's imagination. Consequently, in the gaps of a text are places in which the reader participates most actively. Various writers have written on the fact that they provide some room in their text for the reader's imagination, avoiding the presumption that they know best how the story should be completed (Rosenblatt, 1978). These gaps mark a genuine work of literary art, and in most cases, the genius of the writer. It is a *less is more* ethos, and writers who have succeeded have done *more with* less. For the writer to fill in all gaps is to become didactic, which is a primary concern for creators of museum theatre. Finding balance between the pedagogic demands and the artistic quality of the script and avoiding didacticism is necessary to the success of the performance, for lack of gaps in a script leaves its spectators with little room for

creativity and imagination to realize the performance. The spectator's engagement is threatened, and boredom can ensue.

This process of meaning making between text and reader is twofold. In the first part, the literary work is being generated or realized[CO4], and during this realization, a "concurrent stream of feelings, attitudes, and ideas is aroused by the very work being summoned up under the guidance of the text" (Rosenblatt, 1978, p. 52). This is the initial response, which is an uninhibited, emotional reaction[CO5], often less than distinct or conscious. This is a necessary, but insufficient first step. Secondly, in order to truly make sense or meaning out of the reading event, the reader then reflects upon the initial response, focusing in on what in themselves and in the text produced such a reaction. Put another way, Rosenblatt builds into her conception of the reading process response to what is being evoked, so that the reader participates by having responses during the reading, which become part of what is reflected upon later. Iser (1978) is in agreement when he suggested that the "....we actually participate in the text, and this means that we are caught up in the very thing we are producing. This is why we often have the impression, as we read, that we are living another life" (p. 132).

The act of reading is creative. It is not simply a reconstitution of the author's intent. Rosenblatt parallels the "synthesizing, organizing activity" of both reader and author. Imaginative power is required in both the writing and reading of a literary work. Again, reading requires more than a deciphering of words, because each word, each sentence only makes sense in relation to context. What can emerge is a "shimmering interplay of meanings, associations, feeling-tones" (Rosenblatt, 1978, p. 54). As a reader

progresses, he develops expectations about the text, about what might happen next, and about the emergent ideas and themes. This principle of organization that guides attention to the cues offered by the text and that undergoes revision as further cues require, has similarities to Jauss's horizon of expectations (1982), which addresses how individual and collective expectations shape the literary experience.

Not only does each reader's horizon of expectations shape the reading of a text, but each text has been shaped by the author's horizon of expectation, both of which are formed by the "collective assumptions, cultural ideologies, and genre conventions" (Cornis-Pope & Woodlief, 2000) of a particular time. As I noted earlier, Rosenblatt is very clear that any reading is historically-situated. She and Jauss both stress that any reading must be considered diachronically. That is, a text will be interpreted differently over time. In his conception of the horizon of expectations, Jauss (1982) clarified how this is true for reader and text. The author of a text has his or her own horizons of expectations, for they too are historically-situated. Sometimes there is a shared horizon of expectations between author and reader, but sometimes these diverge, causing the reader, if aware of his or her own assumptions and preconceptions, to be able to compare and contrast between the two. This creates a productive tension as the reader teases out the differences and similarities. Rosenblatt's (1978) writing adds to this by making the point that even if the reader and author share the same horizon of expectations, living at the same time in the same social group, "their uniqueness as individual human beings would insure this interplay" (p. 56). In her analysis of Jauss's concept, Wilkins (2005) draws attention to Jauss's use of the term "horizon," which "suggests that these expectations

surround readers, but are not fixed: they move as readers move" and thus "the reader's relationship with texts is a productive one" (\P 6).

Sometimes the reader must re-establish expectations based on cues in the text. The reader's assumptions about what may happen next may need adjustment. Rosenblatt (1978) uses the example of Shirley Jackson's short story "The Lottery," which begins with cues that indicate a bucolic small town readying for an annual event. At some point in the reading, expectations begin to change about what will happen next, as the reader picks up on alternate cues to what is really happening. The reader brings the savagery of the event forth. The reader re-evaluates what has already been read and responded to, creating a productive tension between the horizon of expectations in the reader and the text, as she teases out what she thought was going to happen and what is happening. This is the self-correcting process referred to earlier. A second reading of this piece would be very different and involve seeing how the savage event is foreshadowed in the bucolic description.

Transactional theory is comprehensive in considering all reading acts as transactions. Reading a newspaper, poem, or a novel are all transactional events, requiring the reader to evoke the work through a transaction with the physical text. The difference between these kinds of transactions is in the way the reader performs differently with each text. When the reader's attention is focused on what can be taken away from the text, Rosenblatt has labeled this an efferent reading. When the reader takes an efferent stance, his or her selective attention pushes personal or existential information aside to narrow in on information that can be obtained or that will assist with actions after

the reading. For example, when reading an instructional manual, the reader attempts to select pertinent information that will assist in carrying out an action. The purpose of reading is a means to an end, rather than an end itself.

On the other end of a continuum is an aesthetic stance. An aesthetic reading is one in which the reader "chooses from a broad spectrum of ideas, associations, and feelings stirred up by the verbal symbols" (Hollingsworth, 1979, p. 225), and the process of reading is an end itself. The sound and rhythm of words are noticed. Images, feelings and ideas that are part of the reader's past experience are brought to the surface by certain words and their referents. Rosenblatt (1978) emphasizes the internal focus within the reader: "In aesthetic reading, the reader's attention is centered directly on what he is living through during his relationship with that particular text" (p. 25). While any text may be read efferently or aesthetically or some combination thereof, an aesthetic stance is essential to realizing a work of art (Rosenblatt, 1978).

What influences the adoption of one stance over the other aside from the reader's conscious intention? There are a number of cues that alert the reader, though sometimes it is the text alone that provides the cues to take a particular attitude toward what he or she is reading. The conventions of poetry or play texts as they are shaped on the page serve as a signal for an aesthetic stance. A legal document has equally distinctive features, which can generate an efferent stance. Though, it must be noted, a reader can consciously choose to read a legal document aesthetically, and a poem efferently. The circumstances of a person's reading of the text provide additional cues. A comprehensive reading test in a school setting will probably determine an efferent stance. Furthermore, in the United

States, students are often encouraged to read texts efferently in a search for a message, given meaning, or moral (Purves, 1988). Looking for a book in the fiction section of a library may signal an aesthetic stance. But again, Rosenblatt (1978) reminds us that the reader can change his or her stance within one reading event. For example, the reader can focus on expositional text in a novel for necessary information, and then return to an aesthetic stance once this need for information is satisfied. Or a student may begin reading a poem or novel for class requirements and suddenly discover the beauty of the language. Efferent and aesthetic stances do not stand in opposition to one another; rather, most readers use both stances in their reading.

Rosenblatt (1993) further elaborates how readers use both stances: "We don't have the cognitive, the referential, the factual, the analytic, the abstract on one side and the affective, the emotive, the sensuous on the other. Instead, both aspects of meaning – which might be termed the public and the private – are always present in our transactions with the world (p. 383). Elaborating further on this point, Rosenblatt finds the distinction between non-aesthetic and aesthetic readings "lies not in the presence or absence of emotive or cognitive elements but in the primary direction or focus of the reader's attention" (1978, p. 45). Both types of reading have private and public elements, cognitive and emotional elements.

The stance a reader adopts at any given moment guides selective attention. The notion of selective attention was developed by William James to describe the human activity of selecting out of our "stream of consciousness" (Rosenblatt, 2004, p. 1368) what to focus on and give attention to. This happens all the time. We push some

information to the background while focusing on other information. For example, on a city street people around us are ignored while we focus attention on street names and traffic signals in order to get to an appointment.

In reading, Rosenblatt (2004) calls selective attention a "dynamic centering" (p. 1368), stressing that it is not a mechanical process of choosing what to focus on. "The selective process operates in weighting responses to the multiple possibilities offered by the text and thus sets the degrees of awareness accorded to the referential import and to the experiential process of being lived through" (Rosenblatt, 1978, p. 43). Selective attention assists the reader by focusing in on a particular meaning of a word or phrase, from the various possible meanings that exist, as in the earlier discussion of "home". Influences on selective attention include the physical and emotional state of the person, as well as a particular time and place.

Rosenblatt (1978) quotes Coleridge to accentuate that in an aesthetic reading there has to be, for the time of the reading, a "willing suspension of disbelief" (p. 32) by the reader, in order to focus less on the actual world and lack concern for connections to practical reality, and live through the experience of the text. This is not to say there is a complete disconnect with reality, but a shift in focus, allowing the person to concentrate on the imagined world for a time. Fauconnier & Turner's (2002), theory of conceptual blending offers an alternative conception of this process for performance, wherein the spectator is able to blend the reality of the stage with actual reality without confusion.

Imagination is required in the aesthetic reading process, but again, Rosenblatt is quick to add that efferent reading and by extension, all verbal communication, requires

imagination also. However, imagination coupled with that 'willing suspension of disbelief' allows the aesthetic reading. On the continuum between efferent and aesthetic, I believe this characterizes the outermost of the aesthetic experience, when for a time a reader moves in this direction. This is a moment in the pendulum swing of a reader's, or a spectator's, experience. This continuum can also be thought of as a color pallet, with yellow at one end and blue at the other, and while there are yellow and blue reading experiences, these colors create many shades of green readings.

This moment is one of transition between two realities, which I feel compares to Victor Turner's notion of liminality, of being betwixt and between (1982) or more particularly Augusto Boal's metaxis. Through a "transitive identification" (Boal, 1995, p. 44) with the actor, a spectator's sympathy allows metaxis to occur within themselves. This state is produced by imaginary movement between the fiction of the drama and the social reality of the spectator. For Boal, being in the fiction of the drama allows for practice that in turn may modify the social reality of the spectator (Boal, 1995). Practicing behavior in a fictional world is one of the foundational ideas of drama in education work (Wilhelm & Edmiston, 1998; Heathcote & Bolton, 1995). I touched on this idea in the prior section on empathy.

Living through the experience of reading any text aesthetically, the reader forms an environment for the text while simultaneously the text forms an environment for the reader. This environment, a third entity created in the process of meaning-making, is the world of the text. In order to create this world, the "reader looks to the text, and the text is activated by the reader" (Rosenblatt, 1978, p. 18). Inside this world, the reader

experiences meaning. Meaning does not reside outside of the experience. For the time of this reading event, the world outside of the text is suspended. This is a phenomenon expressed by spectators of theatrical performances. They move into the world of the performance, forgetting where they are as they watch. It is an imaginative journey. Though there are differences, many similarities such as this one exist between watching a performance and reading a text. In this next section, I will theorize those analogies, using as examples performances taking place in museums.

Aesthetic Engagement

Complementary to aspects of transactional theory is the notion of aesthetic engagement. Bundy (2003) explored aesthetic engagement in drama practice and formulated a set of key characteristics for aesthetic engagement: connection, animation, and heightened awareness. Bundy's proposition is that true aesthetic engagement cannot occur unless all three characteristics are achieved, each working in tandem with the others, enabling the others. "When we experience a sense of invigoration (animation) as we connect to an idea at a metaphoric level (connection) we are encouraged to be more alert to new ideas and thoughts (heightened awareness)" (Bundy, 2003, p. 180).

The first characteristic I will detail, connection, is also where Bundy's ideas most closely relate to transactional theory.

Connection happens when someone connects to the idea of a work of art. It is not that one has to connect with the idea of a work, but with an idea that is provoked from that work, which may or may not be part of the creator's intention. These could be broad themes like the idea of beauty or grief, but in relation to oneself. Like Rosenblatt's

theory, the idea does not reside in the work of art, but is bound up in what is evoked from a viewer's, or spectator's, transaction with it. In particular with a drama, Bundy writes that to be engaged requires spectators "to make some association between the drama and previous personal experience or understanding. The idea emerges in the association" (p. 177). The association emerges through a response to a "juxtaposition of elements internal and external to the work" (p. 180). This juxtaposition takes place in the mind of the spectator, and without this comparison of elements the idea cannot happen. The required integration of personal experience and understanding into connection resonates with transactional theory.

The second characteristic, animation, is the awareness or feeling of being engaged and invigorated by the work of art. When the final characteristic, heightened awareness occurs, it encourages questions and thinking about ideas in a new light, Again, these characteristics function in a complex, interconnected fashion, but each are required to achieve aesthetic engagement, which opens the way to a new sense of knowing. Bundy (2003) describes this way of knowing as involving both emotion and cognition, "acting, not separately, but in a 'thinkingly feeling' or 'feelingly thinking' way. Emotion and cognition seem to be fused into a whole in the process" (p. 172). Because of this view of emotion and cognition and the similarities with aspects of transactional theory, this conception of aesthetic engagement synchronizes well with the theoretical perspective of this study.

Performance as Transaction

Using the study of psycholinguistics, with its focus on the active contributions of the listener to what she hears and understands, Rosenblatt (1978) draws comparisons to the act of reading. As in reading between text and reader, in listening "there is no simple correlation between the properties of the acoustic stimulus and the listener's interpretation of the sentence" (p. 41). Sound has no inherent meaning, even when the sound is an actors' speaking the lines of Shakespeare. That said, sound from an actor's voice, such as a croaking uneven whisper of an infirm character, signifies in a similar way to the short lines of a poem – it may trigger a culturally constructed meaning in the mind of the spectator, but is not restricted by that.

Like marks on page that are not realized into a story until a reader reads, a performance makes no sense as an activity until an audience begins to watch. Or to be more precise, a performance is a set of sounds vibrating in the air, "waiting for a listener to interpret them as verbal symbols and under their guidance, to make a work of art, ...a play" (Rosenblatt, 1978, p. 13).

In fact, great confusion is caused when it is not clear if a performance is a performance. Street theatre confronts this dilemma continually. A performance lives only as a transaction. Reception of performance is, like reading, a reciprocal communication that transforms both spectator and performance. Moreover, spectators can have more power over how a show is performed than the reader with a text, because an audience's enthusiastic or apathetic response to a performance can drive it to new heights or sap its energy. A dialogue is begun between them, each contributing to the meaning of the

event. The activity of the performance begins to make sense in this agreement between performer and spectator that this is a performance, and that the activity must be viewed in a different way than other observable activity. Actors performing without an audience become part of a self-reflective exercise, akin to rehearsal.

A performance happening in a museum is similar to street theatre. With most much of museum theatre, no stage marks the performance, so it is crucial to clearly define the activity with signs, costumes, or other supportive information that might cue the visitor, like the wide margins and short lines of poem for a reader, into taking an aesthetic stance. The activities of a performance, influenced as they are by playwright, director, and actors, such as verbalizing a script, carrying out blocking and movement, singing with music, stand stark and meaningless until transformed by a spectator into meaning when viewed with imagination.

The ways in which action is framed affect how visitors read meaning into what they witness (Schechner, 2002). It is important to enable the visitor to answer quickly questions that might arise when encountering a museum theatre performance, such as: what is happening here? who is this? and why is this person talking to me? Answering these questions helps the visitor make choices in relation to the activity. Visitors can agree to become spectators or not by physically stopping or moving. The stance taken by the visitor who chooses to become a spectator will assist in clarifying the activity. An efferent stance might lead the visitor to conclude that this is an actor taking on a role, providing information about an historical event perhaps. An aesthetic stance might lead the visitor to suspend disbelief and look on the actor as the character being played, time

traveling with the actor back to an historical event. But again going back to the color pallet of stances, different combinations of blue and yellow allows for varying green colored experiences. Lighting and sound changes may evoke a change in time and space, creating a virtual reality that can only be realized within the spectator's imagination. In this latter experience, visitors may feel they are 'living-through' this moment, most of their attention on the performance rather than the exhibition hall where they are standing or seated. In this moment, the spectators experience emotional responses to the performance, while also becoming aware of these responses, which then become part of their individual constructions of the performance. This is the full course of meaning-making suggested by Rosenblatt.

Differences between reading a book and watching a performance

While the similarities are striking, there remain obvious differences between the experience of reading a book and watching a performance. First of all, the act of reading is a private event, taking place between reader and text. The act of watching a performance is both private and public. It is a private transaction between one spectator and performance, while at the same time a public transaction between all spectators and performance. So far, I have focused primarily on the commonalities of the private aspects, but a spectator becomes part of the public community of other spectators who are watching together – part of an audience. This communal aspect affects response behavior, such as laughing, or being silent, which in turn can affect the construction of meaning for the experience. Unspoken and spoken communication can occur between spectators. Hearing others laugh may encourage a stronger level of engagement with the aesthetic

aspect of a performance for an individual who might have been inclined to have a more efferent response. One limitation of this study is that it did not determine whether or to what degree the communal experience influenced private engagement. Subjects were not asked and did not volunteer information regarding this phenomenon.

While each are theatrical and linguistic texts are both historically situated, the contexts within which the theatre event or reading a text takes place are generally different. Sauter (2000) clarifies the significance of context on the "presentation and perception of a performance" (p. 9), stressing that context is part of pre, present, and post experience, shaping spectator response. The conventional context points to the traditions of a theatre world in time and place; the structural context denotes where in a society theatre is placed; the conceptual context is how people view theatre's function in society; and finally, the cultural context places theatre as interdependent with other art forms, as well as other cultural aspects of society, including education or religion (Sauter, 2000). More particularly, the actual context of a performance most often differs from the context of reading, i.e. generally one does not go to the theatre to read a novel, or go to the living room couch to watch a live theatre performance. In this study, the actual context of the museum was a significant factor to consider in shaping response.

The stability of performance differs from a book, in that a performance has the ability to be edited before it is seen again, while the text of a book does not change, at least until the next edition. Along with those initiated by a director or other people directly involved, changes to the performance can also be generated through a dialogue between performers and spectators, who express themselves in many ways, such as

booing, applauding, laughter, or silence. In museum theatre performances, spectators can express their disinterest or displeasure easily by walking away, since most performances are done in open spaces.

There are more people involved in a theatre event than a reading event in a number of ways. A performance event can be understood as "something that happens among and between people who are playing the game of theatre; that means people who are performing, others are watching this performing" (Van Maanen, 2004, p. 247). Sauter (2000) characterizes the theatre event in terms of a constant flow of interpretations by the various players, beginning in the preparation by playwright, translator, director, choreographer, and actor, which leads into the production of the theatre event with performers and spectators in a direct encounter, and then later with the spectators thinking about the performance after it is over. In contrast to the private reading of a text, the interpretive construct of a play is complex and is negotiated not just by an individual spectator but between and among the actors, director, technical staff, and the other spectators.

Rosenblatt addressed some of the additional layers of interpretation that occur with a play. She insisted play texts: "before they are acted, they must be read (ital. in orig.) – first by the author evoking his intended work and, second, by the director and actors, who before they interpret" (1978, p. 13) must attend to the reading process, as any reader does. Tulloch's (2005) examination of reading formations, "the discursive and inter-textual determinations" (p. 16) that connect text and reader to understand the reception process of canonical texts in performance, such as Chekhov, suggests that while

spectators may come to certain performances with an established reading formation, they are also reading the text as they watch.

Schechner (2002) has drawn up a "performance quadrilogue" (p. 215) to illustrate a dynamic relationship between the four essential categories of those involved with creating a theatrical performance: "sourcers, producers, performers and partakers" (p. 215). Sourcers denote playwrights, choreographers, and composers; producers are directors, designers, and technicians; performers are the actors; and partakers are the spectators. Each of these categories represents different interpretive constructs. Though distinct constructs, they come together rather like a recipe, as ingredients that offer different tastes in each bite of one dish. For example, the actor provides one flavor with his or her phrasing, the lighting designer something else with a special effect.

There are varying philosophies of theatre regarding the prominence of any of these categories Directors are generally in control of the source material by choosing it, interpreting it, and controlling the actions of the performers to fit his or her interpretation. There is a tradition of directors whose interpretations of texts are so strong that they leave little room for performers' autonomy. There is also the tradition of providing a celebrity star purview over a production, dictating all the elements including casting, and asserting a self-serving interpretation. Sometimes the playwright and director are the same person, reducing interpretive steps. However, regardless of how interpretive constructs are negotiated across a performance, it is clear that there are more stages of interpretation between play and spectator than between text and reader. What is less clear is how each

aspect of interpretation must be delineated in order to understand the nature of spectator response to performance.

In another conceptualization of theatrical communication conceived by the Russian director Vsevelod Meyerhold (Schechner, 2002), there is a straight line from author to director to actor to spectator, each passing on their interpretation to the next. This model places the last connection between actor and spectator. This model oversimplifies a complex process. Transactional theory suggests that each person involved in a performance would have an individual construct of meaning based on the reading of the play and/or the viewing of the performance. Rather than a straight line, it might be better to think of the negotiation process as being like a painter's palette, with a variety of colors that can be easily mixed. An essential aspect of a transactional model of spectator response is reciprocity – both performance and spectator realize or evoke the other and in that act meaning is made, which transforms each. This is a complex process in that the meaning constructed is within each individual, but these meanings can often overlap so that they are shared between individuals, which in turn has an effect on that meaning.

Reading deals with printed text, while a performance verbalizes and embodies printed text. In this study one of the performances also incorporated printed text to underline the verbalized text. Some text of performances is also sung, adding a musical element. Music appears to evoke an aesthetic stance in spectators. In theatre terminology, a performance text is more than just the play script. It contains multiple sign systems beyond the script; including everything that takes place in a performance that a spectator

experiences (Schechner, 2002, p. 193), such as lighting and sound effects, movement and speech of the actors, any set and costumes, and other technical or multimedia effects. How the actor verbalizes the dramatic script using various tones, rhythms and emphases, modulating the emotional level of delivery of lines will affect spectator response. Said with a sneer, pleasant and kind words are likely to be interpreted by the spectator to have a different meaning than if the same words were uttered with a cheerful smile. The actor has influenced the performance text in his or her interpretation of meaning, creating two layers to which the spectator responds, text and sub-text. This is not possible in reading a text.

Here perhaps is the biggest difference between reading a book and watching a performance – the performer. No such intermediary functions in the reading process. Even a strong narrator in a novel is still without form until conjured by the reader. The actor in a performance works as ambassador of the text, inviting the spectator to enter its world. Additionally, the potential for improvised text or happenings in a performance can occur based on momentary exchanges between performer and audience. The talents of the performer cannot be dismissed, though dictatorial directors might try, for their direct interaction with the spectator forms a vital connection. This is possibly more important in museum theatre than in other genres because the performer generally directly addresses the audience, which was the case in each of the performances used in this study. The performers' abilities to create a believable character, to carry out the blocking of movement set out by the director, to verbalize the script without hesitation, to occasionally sing, and to work well with technical elements, such as lighting and sound

effects, combine to create the impressive feat of presenting the material of the text without apparent effort.

One additional aspect required of the performer, more difficult to articulate, but no less necessary, is an actor's command of the "stage," or stage presence. This is part of the previous list of abilities in that the actor must be in such command of those elements that he or she forgets about them, allowing him or her to concentrate on connecting with the audience. This is particularly key to successful museum theatre, again because of the direct address style and also the proximity of spectators, who may be only several feet away from the performance. The performer's role in the experience of participants in this study was prominent. I will provide examples of the ways in which this was articulated in the Findings section.

Theatre criticism in the formalist tradition is devoted to the examination of the objective interpretation of play scripts. Conversely, there are practitioners and theorists, such as director Peter Brook, who dismiss the notions that anyone can let a play script speak for itself, or reproduce it as the author intended. Brook famously pronounced, "A play cannot speak for itself...one must conjure its sound from it" (Qtd. in Schechner, 2002, p. 216). This openness to interpretation is congruent with reader-response theory. Generally, though, the spectator has not been considered in these views of theatre (Bennett, 1997); while actors conjur the sound of a script, the spectators nonetheless conjur the world of the script in their process of construction of meaning. Transactional theory illuminates this process.

While there are parallels between the experiences of readers with texts and the experiences of audience members with performers, and transactional theory can account for these parallels, there are also crucial differences between these experiences. In both cases, meaning is constructed. However, dramatic performances reflect a complex negotiation of meaning among all who contributed to the performance as well as the usual construction of meaning between each audience member and the performance. Finally, it is an unusual reader who changes a text (perhaps through annotation) yet audience members can influence the performance of a play even while the performance is happening.

In sum, in order to understand how museum theatre "works," we need to move beyond finding out the facts audience members learned and if they generally liked the show. When we understand audience members' emotional reactions we can find out how the precarious balance between art and education is working. Transactional theory is a good tool for this job not only because it encompasses the dichotomy between art and education with the ideas of the efferent and aesthetic, but also because there are important parallels between the interpretation of text (the original site of transactional theory) and how audience members interpret theatre events.

What I have shown throughout this chapter is that my understanding of performance in museums relates to how I have conceived museums, meaning, emotion and empathy, and the action of reading a text. In my review of the literature on meaning and museums, I have detailed how meaning is shaped by time and distance. The contemporary shift to a meaning-making paradigm in museum theory opens up the

possibilities for meaning. It expands beyond the notion of one immutable truth, leading to variation in the interpretation of meaning, which is seen in the data of this study. Then in the section on emotion, I situated and defined affect and emotion and their importance in this study. I showed how various scientific studies support the notion that emotions are essential to our full range of cognitive abilities, which raises the importance of affective processing and shows the centrality of its interaction with cognition. I characterized empathy as a key vehicle for emotional transference and detailed how we may be wired for empathy through such biological phenomena as mirror neurons. A number of the studies I included suggest that the reason for being empathetic is to learn about the world socially, via other people, through our emotional pathways. In this chapter, I conceptualized an active spectator who makes meaning in response to a performance in a museum based on their prior knowledge and experience. Finally, I illustrated how various aspects of transactional theory connect to watching a performance, and then in what areas watching a performance is not the same as reading a book.

CHAPTER 3

METHODS

This study was designed to investigate the nature of response from spectators who saw a museum theatre performance by analyzing those responses through the theoretical lens of transactional theory. The sub-questions of this study are:

- What prior experience and understanding do spectators bring to the performance?
- How do spectators express meaning from the performance?
- What has been selected from the performance for attention?
- Is there a predominance of one stance over the other for spectators of museum theatre?
- In what ways, if any, does the observer become part of what is observed?

In this chapter, the review of methods of this study is organized as follows: summary of elements of the study, which includes a description of the five performances used in the study; selection of informants, description of the sample, data collection, pilot testing of the pre- and post-performance surveys and interviews, data analysis, validation of the data, and a chapter summary.

Elements of the Study

The following chart (see Figure 3.1) details the elements of this study and the timeline of its progression. This provides an overview of what took place in this study.

Study Settings							
Kentucky Historica	Kentucky Historical Society (KHS) Museum of Science, Boston (MOS)						
Participants							
Visitors who saw performances at the KHS			Visitors who saw performances at the MOS				
Study Performances							
Diary of the Depression: A Day with Mary Ruth			Frankly Franklin, Unsinkable? Unthinkable!				
Dawson, Into the V							
Coal Town, Look fo	•	Raising the					
Flag with Franklin	Sousley.						
Timeline for data collection							
Pilot Study: August 4, 2006			Pilot Study: August 18, 2006				
Initial data: August 5 Ğ26, 2006			Initial data: August 19-October 1, 2006				
Pilot follow up interview: October 19, 2006			Follow up interviews via email or telephone:				
	Follow up interviews via email or telephone:			December 11, 2006-January 27, 2007			
December 10, 2006	5-January 25, 20	007		·			
Interview with Gre	Interview with Greg Hardison, manager of			Interview with Margaret Brady, writer and			
museum theatre program, also writer of <i>Into the</i>			director of Frankly Franklin; also performed,				
Veins, and performer, August 11, 2006			September 29, 2006				
Observation forms and field notes taken at time			Observation forms and field notes taken at time				
of performances			of performances				
Timeline for coding							
February Ğ August 2007			February ĞAugust 2007				
Timeline for analysis							
June ĞSeptember 2007			June ĞSeptember 2007				
Instruments for both sites							
Pre-performance	Post-	Post-	Follow-up	Interview with	Observation		
survey	performance	performance	telephone	performance	forms and		
	survey	interview	interview	creators	field notes		

Figure 3.1.

Elements of the study

Description of the Sites

Two museums served as research sites: the Museum of Science in Boston, Massachusetts and the Kentucky Historical Society in Frankfort, Kentucky. They are referred to throughout in the study by the acronyms MOS for Museum of Science and KHS for Kentucky Historical Society. A science and a history museum were chosen for variety in subject matter and because more museums of these disciplines than of art have utilized theatre and theatrical techniques to educate and communicate with visitors (Bridal, 2004; Hughes, 1998). The evolving nature of the disciplines of science and history has often lent itself to examination through performance in museums. Scientific knowledge is always changing, and at an ever increasing speed. At the Museum of Science, Boston plays could be created quickly in response to scientific developments. For example, a series of plays on public policy issues in science was presented; each play explored the social and ethical implications of contemporary scientific pursuits. As I detailed in the review of the literature, the rise of social history (Crew & Sims, 1991) contributed to changing notions of history, highlighting the contributions and perspectives of those such as traditionally under-represented groups and women, whose stories have been overlooked or suppressed. Like the Museum of Science in Boston, the Kentucky Historical Society's current performances are also reflective of such efforts.

There were a number of considerations when choosing museums as sites for this research. First, the museum theatre program's reputation was considered. Both museums' theatre programs are well regarded within the International Museum Theatre Alliance, a

professional organization encouraging best practices in museum theatre, and each museum is an institutional member. Second, the type of performance offered by museums, which varies from institution to institution, was considered. Some museums offer plays for an additional fee or improvised characters that interact with visitors. These two museums were chosen because they offer similarly-styled scripted performances free of charge. After consultations with staff and playwrights from each museum, play performances have been chosen with thought to their potential for emotionality, high quality and variety of content, which includes issues of science, race, ethics, and history. Next, the schedule of performances was examined in relation to the study timeline.

Considerations of location and discipline were also taken into account. These museums were selected to avoid any possible confounds that may arise due to the same participants providing data from both theatre performances. Furthermore, these two sites have vastly different content foci as well as distinct and dissimilar locations (New England vs. the South) within the United States. One is a located in a large metropolitan setting, the other in a small-town bucolic setting. This purposefully increases the sampling potential of a cross-section of museum visitors who view a performance, and potentially extends the extant literature described in the previous chapter, which is predominately made up of single site studies. Similar follow-up studies (Cuomo & Hein, 1994; Jackson, Johnson, Leahy, & Walker, 2002) in other museum sites of various disciplines, sizes and locations strengthen the potential for significant theorizing from the data. Lastly, two museum sites with different performances were purposefully chosen to avoid making one performance and its implicit messages the focus of research.

The Museum of Science in Boston, Massachusetts is a large non-profit institution located in a urban area with 1.6 million annual visitors and more than 400 interactive exhibits and programs focusing on natural history, current science and technology, and the history of science. The state-run Kentucky Historical Society operates the Kentucky History Center located in the moderately-sized state capital with approximately 63,000 annual visitors, which provides quality exhibits and programs, and state-of-the-art technology to inform visitors about the history of Kentucky and its people.

Additionally, these two sites are representative of the type of theatre program that has been implemented in museums.

- Each has an artistic staff member coordinating a full-time program with professional actors.
- Each offers plays for children and adults.
- Each creates plays that are built around pedagogic objectives while maintaining their artistic quality.
- Each presents plays that further the educational mission of their host museum.

 Permission to conduct research within both sites is included in the appendices.

Selection of Informants

The population of the sample was people entering the museum site for a visit, excluding organized school groups. Studies have profiled the average museum visitor as someone who is highly educated, middle to high socio-economic status (Falk, 1998), and visits with family or other groups (Kelly, 2005). Consequently, these characteristics describe the average participant of this study, which precludes for generalization beyond

those who choose to attend museums. From this population, the sample consisted of those who willingly volunteered after choosing to view one of the study performances. This was a self-selected sample. There are ways I might have gathered a random sample from audiences watching the performances, but the effort to randomize would have created an even smaller sample size, or required a much longer period of data collection with more performances. I also might have solicited participants as they entered the museum and asked if they were attending the performance, but this is difficult when they usually do not know about the performance beforehand. Many attend the performances on the spur of the moment, as is seen in participants' responses in this study. Asking those who have chosen by themselves to see the performance appeared to me the most unobtrusive method, least likely to affect their experience. Primary dangers in my sampling method are in possibly getting only positive feedback and not getting a representative sample that can speak beyond those who choose to attend a performance in a museum. One aspect of the sample that offsets this latter danger slightly is that many participants talked about their lack of intention about seeing the performance.

Generally as people were sitting down or standing still to watch a performance, I stood in front of them and made an announcement that was scripted. See Appendix I for the script.

This procedure varied slightly based on the site and performance. At the Kentucky Historical Society (KHS) a staff member made an announcement first (see appendices) and then invited me to make my announcement. Often I was able to ask people individually as they sat down, and then make the more formal announcement. At

the Museum of Science (MOS), one of the actors would make an opening announcement and then invite me to make mine. If the audience had more than fifteen people, following my announcement I would hand out as many clipboards as possible with the pre-show survey. If the audience was less than fifteen, I could distribute one clipboard to each person. If people came in early to sit and wait, I had already approached them and they were in the process of completing the survey. I asked that people just leave the clipboards at their feet or beside them until later. I did not tell them that there was a post-show survey on the back of the pre-show survey sheet. After performances, I made a second announcement. See Appendix J for the script.

There were differences between sites in how visitors responded to my post-show announcement. At the KHS, most people filled out the post-show survey and usually one or two people volunteered for the focus group interview and stayed in their seats. Several times, the discussion of the focus group interview attracted another participant to join us. At the MOS, at the beginning, I had a lot of difficulty getting people to fill out the post-show survey and I did not get anyone to stay for the focus group interview for the first period of data collecting. Luckily, the crowds at the MOS got smaller in September than in August, which helped to get more people to fill out the post-show surveys. It seemed the larger the crowd, the quicker people dispersed after the show. After this, I was able to garner most of the focus group interview participants at the MOS.

The following is a description of my approaches to solicit participants for the focus group interviews and of those participants who took part. The standard procedure, except where noted, was that people stayed in their seats after the show, sometimes

finishing their post-show survey, and I approached and asked if I could talk with them. If they agreed, the interview began. Focus group interviews took place in or close to the performance area. Below is a list of the interviews and participants:

- #1 KHS after *Look for my Picture* (August 5, 2006 11:00) man 70s, woman 30s
- #2 KHS after *Look for my Picture* (August 5, 2006 12:30) one man 70s, woman 70s, man 80s.
- #3 KHS after *Diary of the Depression* (August 9, 2006 2:00) woman, 77
- #4 KHS after *Into the Veins* (August 11, 2006 2:00) woman, 56; woman,
 79; man, 38, boy, 8. In this interview, I obtained permission from the father to interview his eight-year old son.
- #5 KHS after Look for my Picture (August 12, 2006 12:30) woman, 40s
- #6 KHS after *Into the Veins* (August 26, 2006 11:00) I approached an older gentleman in his late 70s, who had initially decided not to watch the play, but then changed his mind. I was interested to get the opinion of someone whose first impulse was to avoid the performance. He agreed and we sat on the bench around the corner.
- #7 MOS after *Unsinkable? Unthinkable!* (September 28, 2006 2:30) I spoke briefly with a boy and his mother.
- #8 MOS after *Unsinkable? Unthinkable!* (September 29, 2006 12:30) The interview was off-camera and only part of the interview was audible for transcription.

- #9 MOS after *Unsinkable? Unthinkable!* (September 29, 2006 12:30)
 After speaking briefly with the two women, I approached a group of one man and two women, all middle aged, who were also filling out the survey, and who agreed to speak with me.
- #10 MOS after *Unsinkable? Unthinkable!* (September 29, 2006 2:30) I approached two boys and a woman with them to be interviewed. They did not fill in a survey. This interview ended quickly, but as this happened, a woman in her 50s approached me and asked if I wanted her responses. I began to interview her and another woman who had seen the show interjected. This woman was about the same age. The two women were the main part of this focus group interview. They did not know each other and were attending alone.
- #11 MOS after *Frankly Franklin* (September 30, 2006 12:30) This interview was mostly inaudible due to noise from the actor on stage demonstrating a Van de Graaf generator.
- #12 MOS after Frankly Franklin (September 30, 2006 12:30) The mother and daughters of the family being interviewed had also seen Unsinkable?
 Unthinkable! a few days before, and the interview included responses to that play.
- #13 MOS after *Frankly Franklin* (September 30, 2006 2:30) After the show, a woman in her 50s approached me for an interview. Unfortunately,

- the interview is entirely inaudible due to the noise of the actor talking with people after the show.
- #14 MOS after *Unsinkable? Unthinkable!* (October 1, 2006 12:30) I approached a woman in her 30s who seemed to be waiting for someone.
 She did not fill out a post-show survey. She agreed to speak with me, but the interview was brief.
- #15 after *Unsinkable? Unthinkable!* (October 1, 2006 2:30) This interview is with someone who had entered the play area after the show started and did not fill out a pre-show survey.

Struggling to find the best location for my request for personal contact information for the follow-up interviews, I moved it first from a separate sheet of paper to the back of the post-show survey, and then again to the bottom of the pre-show survey sheet. Because the crowds were smaller at the KHS, I had little difficulty in matching the separate sheet with personal information to the pre- and post-surveys. They were all coded together based on the pre-show survey code so that I could follow one individual's responses on each instrument. However, the crowds at the MOS were larger and it was very difficult to match these, and as I wrote, I was not getting a positive return rate, so eventually I consolidated the request for a follow-up interview to the bottom of the pre-show survey, and the post-show to the back of the same sheet. For the first set of data collected at the KHS, each instrument was on a separate sheet. Consolidating the three parts onto one piece of paper aided in return rate and organization of the data. People did

not turn the sheet over to look at the back either, which had been a concern. I did not want to cue participants about the post-show survey, because it might alter how they watched the performance.

Data Collection

The participants described in the sample above agreed to participate in the study by filling out the pre-show survey and some then provided personal information on a separate sheet or at the bottom of the pre-show survey that allowed them to be contacted later for the follow-up interview. They were offered the choice of being contacted by telephone or email ten to twelve weeks after the performance.

Initial data was collected (from surveys and focus group interviews) at the KHS on seven days from August 4 to August 26, 2006. A pilot study was conducted with two performances on August 4, 2006. Following the pilot, data was collected with seven performances on a Wednesday, two Fridays and three Saturdays. A description of each play and exhibition area is part of the appendix (see Appendix A).

Initial data was collected (from surveys and focus group interviews) at the MOS with fourteen shows over seven days from August 19, 2006 to October 1, 2006. Pilot studies were conducted with two performances on August 18, 2006. Again, data was collected on both week and weekend days. A description of each play and exhibition area is part of the appendix (see Appendix A).

Pre-show Surveys

Pre-performance data collection took place within the natural contexts of both museum sites before a performance because participants' behavior and attitudes are

related to the environment and social situation of a museum visit (Cohen, Manion, & Morrison, 2000). In this study, participants' expectations as museum visitors are necessarily different from people attending, for example, the opera or a sporting event. Museum visitors' expectations focus on a combination of education and enrichment (Kelly, 1999; Falk, Moussouri & Coulson, 1998). Knowing this, my intention in setting up the pre-show survey was to see if museum visitor participants had to make a choice between learning and enjoyment, which it would be and whether there would be a pre-dominance of one over the other.

Pre-performance surveys have been used in a few studies (Jackson, 2002; Baum and Hughes, 2002; Black and Goldowsky, 1999; Jackson, Johnson, Leahy, & Walker, 2002; Klein, 1995), in most cases to establish a baseline for participants' knowledge of a performance's content. In this study, the pre-show survey (see Appendix B) was used to establish participant demographics and expectations.

Before each show I would estimate how many surveys might be used and number each sheet in the upper right-hand corner and put them on a clipboard with a pencil to have ready for handing out. At the MOS I realized I could set many of the clipboards on seats and people would sit down and begin to fill them out. After each performance, I would collect survey sheets, arrange them in order of their numbers and put them in a file folder labeled with the date, time, and show.

Post-show Surveys

Post-performance surveys or questionnaires have been the most commonly used instrument in museum theatre studies (Bicknell & Mazda, 1993; Baum & Hughes, 2002;

Litwak & Cutting, 1996; Black & Goldowsky, 1999; Rubenstein & Needham, 1993; Malcolm-Davies, 2004; Jackson, Johnson, Leahy, & Walker, 2002). Some have used drawings from children to depict response (Jackson, et al. 2002). The Science Museum in London (Bicknell & Mazda, 1993) used an innovative approach with cartoon characters watching a performance that had empty balloons above their heads, into which participants wrote what they were thinking. Black & Goldowsky (1999) modeled the post-show survey form on a movie review, with stars indicating of level of enjoyment.

I chose to design a post-show survey that was one page in length, so that participants were not overwhelmed, with a variety of types of questions to ward off tediousness. My goal was to make it easy to read and complete in 5-10 minutes, knowing that museum visitors are often rushing to see more of the museum after a show. I wanted an open-ended question to gather any aspect of the performance that stuck in participants' minds, but also wanted to gauge opinions on the content and style of the performances in terms of information and emotions/feelings.

The post-performance survey (see Appendix C) is eight questions in length. The first two questions offer participants several choices regarding their response to the characters and situations. Participants were asked to specify their reactions to the characters by indicating as many reactions as apply to them. An example would be whether they check "related to" a character or "did not relate" to a character. The third question asks participants to recall three items, events or moments from the performance. The fourth question asks participants to rate their overall emotional response to the performance. The fifth question has two parts. First, it asks participants to rate the

performance's content for information. Second, it asks participants to rate the content for feelings/emotions. This is done on a Likert scale from 1, indicating none, to 4, indicating a lot. I chose a Likert scale so that I could see a more modulated response rather than just yes or no. Goals for the post-performance survey are to establish specific responses to characters and situations in the performance, participants' recall of the performance, their overall emotional response, and their rating of the performance in terms of information and feelings. The final question refers back to the pre-performance survey by asking visitors whether the performance surprised them and whether it matched their expectations.

In the beginning of collecting data, after the performances (when there were separate sheets for the pre-, post-show survey and request for follow-up information) I handed out the post-show survey on a clipboard with a pencil with the request for follow-up information on a second sheet under it, out to all who filled out the pre-show survey and ask them to remember the number that was in the upper right hand corner and put that number on the upper right hand corner of this sheet. I would prompt them when they had their pre-show surveys to note that number, hoping they might remember it.

Sometimes, I would help people by identifying with them their pre-show survey to get the right number. Sometimes I had to do this myself when they handed them in. At the MOS, this was particularly difficult to do. I would then collect the post-show surveys into a pile for later sorting. Later, this procedure was simplified by consolidating all three sheets onto one piece of paper. I no longer had to be concerned with matching the numbers, and people kept their clipboards by them during the performances, or I was able

to hand it back with the post-show survey flipped over. The post-show surveys were sorted and filed in the folders with the pre-show surveys and requests for follow-up information.

Observations

Observation has been used in a number of museum theatre studies (Litwak & Cutting, 1996; Klein, 1988; Cuomo & Hein, 1994; Baum and Hughes, 2002; Bicknell and Mazda, 1993; Allen, Allen & Dalrymple, 1999). Due to the live nature of performance, I felt observations were essential to keep track of actions and happenings before, during and after the shows, both the actors' and participants'. Technical glitches have also been known to happen, which could be noted and explained through observation. I kept notes in a field journal and wrote on observation forms (see Appendix H) during performances. The observation forms were noted with show, date, time, and performers' initials. Finished observation forms were kept in a file folder. On the back of many observation forms, I drew diagrams of the audience in relation to the performance, as well as some notes. My field notes were written after performances. Later, I went through and marked my notes with a TN (Theoretical Note) or MN (Methodological Note). I forgot my observation sheet on 8/28, 9/29, 9/30, and 10/1 and wrote observation notes in my field journal. My field journal became a place for me to work out ideas and ask myself questions. I also kept note of any conversations I had with people that did not end up being a full focus group interview. This happened twice at the MOS and once at the KHS.

Focus Group Interviews

Focus group interviews have been used with school and independent groups (Jackson, 2002; Black & Goldowsky, 1999; Litwak & Cutting, 1996; Jackson, Johnson, Leahy, & Walker, 2002; Allen, Allen & Dalrymple, 1999), both large and small. In Black and Goldowsky (1999) interviews with two to three students from a school group immediately following a play performance augmented survey data from the same group. The purpose of the focus group interview was to provide participants an opportunity to discuss and expand on the meaning they made from the performance and to investigate any possible "reverberations, rapid oscillations, blendings, and mutual conditionings" (Rosenblatt, 2004, p. 1368) that may have occurred for participants in their 'transaction' with the performance. Thus, goals for the focus group interview were to elaborate on meaning made from the performance, provide an opportunity for open-ended discussion, and get additional feedback about specific responses to characters and situations.

Focus group interviews were videotaped. The camera on a tripod was set up just before the interview. As stated, there were several interviews at the MOS that were not within the vision of the camera, but did get audio taped. Two interviews at the MOS could not be transcribed due to noise interference. A consent form was offered to focus group members (see Appendix M). Most declined to take it. The interviews took place either in the audience area seating, or nearby on a bench. I took notes in my field journal during the interviews. After interviews, I packed up the video camera and tripod.

The focus group interviews were conducted immediately after performances at both sites. The largest groups interviewed consisted of four participants, the smallest had

one participant. The length of time of the interviews varied from approximately two minutes to twenty minutes. Interviews were videotaped and then transcribed. I attempted a free-flowing conversational style as an interviewer, trying to coax general responses to the performance from participants without influencing the topic of that response and without making the interview seem formal and inflexible. I used the interview guide (see Appendix E) loosely, rather than a rigid form followed exactly each time. Generally, I began interviews with the general question "What struck you, what stuck out from the performance?" The positive result was that participants provided detailed, individual responses. The negative result, from an analysis standpoint, was that the interviews are not shaped the same, often moving into personal stories that I allowed, so cross comparison of interviews was more challenging. Two questions that were asked in every interview were:

Did anything surprise you? What surprised you?

Did anything stick out for you that you saw? What stuck out for you?

Another negative in my review of the videotaped interviews was my analysis of my own performance as an interviewer. In attempting to create a free-flowing relaxed conversation, I often talked too much. Conversations have more equal responses from those involved, which worked against the requirements of an interview, where responses are not equal. The person being interviewed should be contributing the most (Kvale, 1996). Consequently, there were several times I believe I could have gotten more details from participants had I been more formal and limited myself to brief utterances of encouragement, rather than commenting on their points.

Follow-up Interviews

Final data was collected via telephone interviews from both sample groups from December 10, 2006 to January 25, 2007. A pilot telephone interview was conducted on October 19, 2006. Email interviews were collected from November 29, 2006 to January 3, 2007. Email has begun to be used as a research tool and offers, "many advantages such as easy access to world-wide samples, low administration costs (both financially and temporally) and its unobtrusiveness and 'friendliness' to respondents' (Selwyn & Robson, 1998, ¶1). Follow-up interviews have been used in some museum theatre studies (Cuomo & Hein, 1994; Jackson, Johnson, Leahy, & Walker, 2002; Barrie, 2001; Jackson, 2002; Allen, Allen & Dalrymple, 1999) to investigate long-term effect.

I created a chart with the information each participant submitted on the follow-up request plus several other categories of information: a number for counting, name, code (from pre-show survey), phone number, email, show they saw, date they saw it, projected date to be interviewed (estimated to be three months from date they saw show), preference for communication, and a note regarding their response (i.e. yes, no, incorrect number) to the follow-up interview. This allowed me to keep the information organized, to be aware of dates and shows when talking with participants, and to update as I proceeded in collecting data.

In follow-up interviews it took an average of 2.5 attempts at calling to reach participants. I did not leave messages on phone machines for any participants. One person no longer lived at the number he submitted. I spoke with parents first to ask their permission to speak with any children. Three participants asked me to call back at a better

time for them, which I did. One woman was having a medical procedure done on her leg and asked me to call a few weeks later, which I did. I found that three telephone numbers were non-working numbers. When I did reach a participant and conduct an interview I tried to note the time of beginning and ending. I was able to note this for ten interviews from the MOS sample and nine for the KHS sample. From these, the average length of the telephone interviews was 7.9 minutes long (7.3 minutes for MOS; 8.5 minutes for KHS).

Email interviews were solicited by sending out emails to all who submitted their addresses on the request for a follow-up interview. The following script was sent out on November 29, 2006:

Hello. You are being contacted as you agreed to when you were surveyed after a performance at the Kentucky History Center (or Museum of Science). This is part of my dissertation research and I am a student at the Ohio State University. As before, your participation in this research is voluntary. If you have any questions, please feel free to email me at hughes.929@osu.edu or call me 740-504-9089. Your feedback is important and very much appreciated.

Please look at the questions below and email your response as soon as you can. This is in no way a test with right or wrong answers. I am trying to get your honest responses.

Thank you.
Catherine Hughes

- 1. Can you remember the performance you saw?
 - a. If so, please describe what it meant to you.
- 2. Can you recall three items/moments from the performance as you did on the survey? What stuck out for you?
 - a. Please describe the qualities of these items.
 - b. Please describe why you believe you remembered these items.

3. This is your opportunity to make any comment or provide any feedback about the performance you saw. Please feel free to make any comment.

I received eight responses without further solicitation. I also received six notices of failed delivery for whatever reason. I then sent out a second email request on December 10, 2006 with the same questions at the bottom:

Hello again

I have received some wonderful replies for which I am very thankful. If you are one of those folks, I want to express my appreciation. However, I do need as many responses as possible and so I am sending out this friendly reminder/request. I will not send any further reminders. This is completely voluntary.

Again, I am a student at the Ohio State University and this is part of my dissertation research. As before, your participation in this research is voluntary. If you have any questions, please feel free to email me at hughes.929@osu.edu or call me 740-504-9089. Your feedback is important and very much appreciated.

Please look at the questions below and email your response as soon as you can. This is in no way a test with right or wrong answers. I am trying to get your honest responses.

Thank you. Enjoy your holidays. Catherine Hughes

From this I received another eight responses for a total of sixteen, and two notices of failed delivery for a total of eight failed deliveries. The non-response rate to emails, for participants who did not respond and for which there was no failed delivery notice, was 71%. This rate of non-response is high, and it has been conjectured that emails as a

research tool would receive a higher rate (Selwyn & Robson, 1998), but I was unable to engender a higher rate. I emailed a thank you to each participant who responded.

For the follow-up interviews by telephone, I went down the list trying each number. I used my computer to take notes and capture verbatim responses during the interview. I also audiotaped each interview in order to clarify what someone said, if needed. These interviews were not transcribed, though I did need to review three audiotapes to clarify what participants said and in these cases, I did transcribe some pieces of the interview. I noted each time I tried anyone and if no one picked up, I went to the next number.

Barrie (2001) was able to gather rich data in follow-up interviews with participants who had visited two interpretive sites. Similar to Barrie's experience, I had participants talk freely over the telephone, or if responding by email, have the freedom to respond in their own time. Generally people were not prepared to spend more than a few minutes in the focus group interview. In the end, I had more people respond to the follow up request, and more in terms of volume. After segmenting the data, I had 141 segments from interview transcripts (from both sites) and 277 segments from the follow-up interviews. In interview transcripts, I am always marked with a C and those I am interviewing are marked with M for man, W for woman, M1 or M2 if more than one, and W1 and W2 if more than one. In Interview #11with a family of four, they are represented by F for Father, M for Mother, OD for Older Daughter, YD for Younger Daughter.

When I did reach a participant, I verbalized a similar script to the one that was emailed to participants to guide the telephone follow-up interview. The script is shown in the piloting section below.

Pilot Testing of Instruments

The pre-show survey, post-show survey, and follow-up telephone interviews were piloted in order to test their clarity, suitability and veracity as instruments of this study. It was important as well to understand where the procedures might need smoothing out.

Pilot testing was also conducted to provide a comparison to the larger body of data.

The questions on the pre- and post-show surveys were developed by identifying the core information needed from participants and by modifying survey practices of various researchers (e.g., Baum & Hughes, 2002; Hein, 1998; Black & Goldowsky, 1999). The goal with the pre-show survey was to establish participants' stance and expectations toward the museum visit and the performance. In addition, demographic information, including age group and gender, as well as museum profile information, such as whether participants are museum members, tourists, and/or theatre-goers, was requested. The pre-show survey was piloted at the KHS on August 4, 2006 with the play, *Into the Veins*. Ten participants filled out the survey. The pre-show survey was piloted at two shows at the MOS on August 18, 2006 with the play, *Frankly Franklin*. Thirty-five participants filled out the survey.

From the piloted results of the pre-show survey, it was clear that the questions asked were not causing confusion. Participants consistently filled out almost all questions. In the MOS pilots, three participants filled in both "to learn" and "to enjoy",

which was considered a legitimate response for a small minority. If the majority had answered by checking both, the question would have needed reconsideration.

I was also able to test my observation form, which I found somewhat restrictive and not as helpful as I had hoped. I wrote, "There is too much to be aware of and I struggle to capture any of it" (field notes, August 4, 2006).

An important element not on the form was the configuration of the audience in relation to the performer. Rather than change the form, I realize I could draw a diagram on the back of the form that marked where people sat/stood to watch, how many there were, and other movement. I included myself as an audience member in the diagram. The form did assist me in keeping note of audience size and audience participation.

Procedurally, after the KHS pilot, which took place before the MOS pilot, I felt I had to modify how I got the surveys back from people before the show. For the pilot, I had them keep the clipboard with the separate sheets for the pre-show survey, post-show survey, and request for information for the follow-up interview. This appeared to be a burden, as participants were required to walk between three locations within the exhibition of the play. Also, in field notes (August 4, 2006) I wrote that I was overwhelmed with the different pieces of white paper and realized I needed to color code them, which I did initially before I put them all on one sheet of paper. After this pilot, I took the clipboards from participants who saw *Into the Veins* and for all other plays, where the audience was stationary, I encouraged people to place them beneath their chairs or beside them when they finished.

From the piloted results of the post-show survey at the KHS, when seven out of ten participants checked that they were surprised by the performance, I added a line to the survey where they could explain their response. In the MOS pilots, only fifteen participants out of the 35 who filled out the pre-show survey completed the post-show survey. One person did the post-show survey without the pre-show survey and one participant's responses did not seem legitimate considering the age of the child. I guessed the parent must have filled it out. This suggested to me that it was going to be more challenging to collect post-show surveys with usable data from the MOS sample. I did modify my approach to be more assertive in soliciting participants' responses on the post-show survey and for the focus group interview. The modification was not in what I said, but in how quickly I jumped up after performances, how eagerly I spoke and in how much eye contact I attempted with participants. I found it very important to make clear that I was a student doing graduate work, and not someone doing evaluation for the museum. I wanted to be perceived by spectators as objective and unbiased.

I did not get an opportunity to pilot the focus group interview, as no one volunteered after the three pilot performances. I did pilot the follow-up interview over the telephone. On October 19, 2006 I called a participant who had seen *Look for my Picture:* the Story of Franklin Sousley at the KHS on August 4, 2006. My interview guide went as follows:

Hello. This Catherine Hughes. I'm a graduate student at Ohio State University. We met at the Kentucky History Center (or Museum of Science). I'm contacting you now as you agreed to when you were surveyed or interviewed after a performance at the History Center (or Museum of Science). As before, your participation in this research is voluntary. Do you have a moment to speak with me? (if so) I have a few

questions about the show you saw. Your feedback in important and very much appreciated.

- 1. First, can you remember the performance you saw?
 - a. Can you describe what it meant to you?
- 2. Can you recall three items/moments from the performance as they did on the survey? What struck you?
 - a. Can you describe why you believe you remembered these items?
 - b. Can you describe the qualities of these items?
- 3. This is your opportunity to make any comment or provide any feedback about the performance you saw. Please feel free to make any comment.

This gentleman remembered the play, but provided few details beyond the moment when "they were raising the flag". He had been in the Pacific during the battle of Iwo Jima, and the play provoked many of his own memories. I realized from this interview that I needed to be sure to follow the scripted question guide more closely, as it was easy to go off course in the conversation. This participant's stories about the war were pertinent, but went on for so long that it precluded hearing about other responses to the play. I needed to find a balance of listening and shaping the interview. Kvale (1996) articulates the challenge: "the key issue is the interviewer's ability to listen to what is important to the subjects, and at the same time, to keep in mind the research questions of the investigation" (p. 133).

Doing the pilot interview also got me used to the technical procedures of turning the tape recorder on, making the telephone call, having my laptop on my lap, and cradling the telephone with my shoulder so that I could type, at a time when I would not be

interrupted. Problems arose initially when I used the wrong phone and was unable to keep it securely cradled at my ear, which impeded my ability to capture the conversation by typing on my computer.

Data Analysis

The research problem of understanding the nature of spectator response to performances in museums influenced every decision in the data analysis process. In part, I was guided by the lens of transactional theory, which offered the codes of aesthetic or efferent as ways of considering the data, as well as the guiding questions of what was selected for attention and what meaning was created by participants. The questions, in essence, provided two additional structures by which to analyze the data. By placing the questions at the top of columns in a spreadsheet with the data segments (in the first column), I was able to begin conceptualizing the categories as if they might be answers to the questions, constantly refining these answers over time.

Coding was developed by means of an inductive approach for analysis of data through Grounded Theory's constant-comparative method (Glaser & Strauss, 1967) to find recurring elements in the data concerning the two questions: what was selected for attention and what meaning was created. The key to this method of analysis, stressed by Lincoln and Guba (1985), is a constant comparison during the process of coding and analysis of each new piece of data with previous data similarly coded. This ongoing comparison is meant to stimulate theoretical thinking "that leads to both descriptive and explanatory categories" (Lincoln & Guba, 1985, p. 341). The researcher begins to understand the full dimensions of the categories and possible relationships, and to flesh

out conceptual elements of theory (Merriam, 2002). Ryan and Bernard's (2000) definition of grounded theory as "an iterative process by which the analyst becomes more and more 'grounded' in the data and develops increasingly richer concepts and models of how the phenomenon being studied really works" (p. 783) encapsulates what I did in this study. My goal was to conceptualize what happened for participants by using the empirical data, generating theoretically strong categories to explain the phenomenon researched, basic tenets of Grounded Theory (Glaser & Strauss, 1967).

I revised and refined the categories, repeatedly combing through the data segments. I moved segments around, testing them in one category or another. I modified the phrases used as categories. In Chapter 4, I provide examples of some of those changes. I feel the final categories are now reasonably appropriate and durable. These categories enabled me to capture what I felt were the voices of the participants.

My next step was to begin integrating categories and relationships in an effort to achieve saturation (Lincoln & Guba, 1985), the point at which no new categories or relationships can be developed. The details of each step of analysis are discussed to clearly illustrate the ways in which transactional theory was utilized for analysis, and how constant comparison was applied in this study. I begin in the next section with the data collected from the surveys.

Statistical analysis (Spatz & Johnston, 1989) was used to determine what differences there might be in data between the sample from the KHS and the sample from the MOS. I also conducted a gender analysis of the pre-show survey data in order to determine if there was an effect by gender. I created two different documents by cutting

and pasting the pre-show survey data separated by sex into one all female data and one with all male data. I used a chi-square test (Spatz & Johnston, 1989) to determine if there were differences between the two gender groups' responses. The results are included in the next chapter.

Negative case analysis was used in order to investigate alternative explanations of the findings. This procedure requires that the researcher formulate and revise findings, searching for "disconfirming data in both past and future observations" (Lincoln & Guba, 1985, p. 310). This process is also, conversely, consistent with constant-comparative methodology.

Pre-show Survey

Using the theoretical framework of transactional theory to guide my analysis of the data, I began with participants' pre-show responses for their expectations. In order to establish participants' stances toward their museum visit and in particular the performance, a pre-show survey (see Appendix B) offered a binary choice to describe participants' main expectation for their museum visit and for the performance. While participants could obviously feel both choices were appropriate, I chose to ask participants to decide which of these two expectations was the more dominant. I was pushing them in order to see if there was a preponderance of one of the other. First, they could pick either "I came to the museum today expecting to learn something" or "I came to the museum today for enjoyment". Second, they could choose either "I am attending this performance to learn something" or "I am attending this performance for enjoyment." They were also offered an "other' option with a blank line, which some

used. These descriptions were worded to align with transactional theory's aesthetic and efferent stances. Though far broader, the notion of enjoyment represents an aesthetic stance and the notion of learning something represents an efferent stance.

Quantitative Data

Quantitative data from pre-show surveys and post-show surveys was compiled and percentages and averages were calculated. There was missing data to several questions, and those who did not answer the question were excluded from individual analysis. However, I did not exclude surveys with missing data, because the missing data was not from the same cases. It varied across the sample. To be clear, the *n* for each analysis is noted.

Chi square tests were used to detect significance of differences in response between the two sample groups. Chi square (X²) is used to test "goodness of fit" (Spatz & Johnston, 1989) between the actual and expected data, which will tell whether the null hypothesis (the actual data fit the expected data) should be rejected. In this study, the null hypothesis would be that there is no difference between the two sample groups' responses. Data was analyzed at the .05 level of significance.

A *t*-test was used to determine whether the means from two samples were different. A significant difference at the .05 level would indicate that the null hypothesis, that there is no difference between the means, should be rejected.

Qualitative Data

The first step in analyzing the open-ended response data from Question E of the post-show survey, focus group interviews and follow-up interviews was to identify data

segments (Tesch 1990). It should be noted that responses to Question E were already in segment form, as many participants provided short or one-word responses. Segmenting was undertaken in order to distill down the more complex interview data into workable pieces for analysis. Tesch (1990) has defined a data segment as "a segment of text that is comprehensible by itself and contains one idea, episode, or piece of information" (p. 116). While the goal of segmenting is to divide the data into the smallest possible pieces (Tesch, 1990), segments varied in length. One data segment is an extended exchange between researcher and participant that had one central idea, while another is a fragment of one sentence that was divided into two because it referenced two different ideas. Irrelevant material and references were eliminated. Several participants provided extended stories, which in the end were off-topic and not actually responses to the performance. The point was to have pertinent data in a manageable and standard form. From this I could code segments as aesthetic or efferent, as well as see "certain words, phrases, patterns of behavior, subjects' ways of thinking, and events that repeated and stand out" (Bogdan and Biklen, 1982, p. 156) in order to develop a categorizing system. Because efferent and aesthetic stood as poles of a continuum, I was open to the possibility that some segments might prove to have equal elements of both aesthetic and efferent, which I had decided would be coded as both, while I would generally code based on which category was more prevalent.

Question E Data from Post-show Survey

I began coding by using the stances of transactional theory. I coded participants' responses to the post-show survey question E (see Appendix C): "Please describe three

events, items or moments you most remember in the performance" in terms of efferent or aesthetic. For example, I coded such responses as "When he posed for the picture" (August 5, 2006 KHS) and "Ben Franklin's many roles" (August 20, 2006 MOS) as Efferent because these comments were about content or an action in the play, but they offer no opinion about the quality of the experience. Comments labeled as Aesthetic include: "Really tugs at your heart" (August 5, 2006 KHS) and "liked the performance acting as crab 'talking to humans' [sic]" (October 1, 2006 MOS). These responses offer in some sense the individual's experience in the performance event. After examining the individual performances for variations, initially I proceeded with a second level of coding, dividing beyond the Efferent/Aesthetic coding, but after working with the data from the follow-up interviews, I established a more universal coding system. Therefore I created a new document with the data segments converted into a table to enable me to go back to the data from Question E and re-code according to this system, which I detail in the next section.

Development of Categorizing System

After segmenting the interview transcripts and the follow-up interview data, I built a table around the segmented data, so that each piece was numbered and had three empty columns next to it. The first column was labeled "Aesthetic or Efferent", the second, "What was selected for attention?" and the third "What meaning was created?". I began by coding the segments as either A or E, or A and E. Below is the header to the table.

Figure 3.2.

Header for Data Segments Table

#/Segmented follow up interviews	Aesthetic or	What was selected for	What meaning is created?
	efferent	attention?	

Next, through constant-comparative methodology developed as part of Grounded Theory by Glaser and Strauss (1967), I developed a categorizing system, or typology (Tesch, 1990) to describe what was selected for attention. Rather than work with preestablished categories, such as those developed by Jackson, et al. (2002), I felt it necessary to sit with the data and inductively create categories from participants' words. While many of the same themes such as surprise and recall (Jackson, et al. 2002) were evident, in trying to answer the particular question of what participants selected for attention I used different phrasing. Here are the categories I developed for the second column to describe segments: Play quality; Information quality; Play form; General enjoyment; Subject of narrative; Elements of narrative; Play message; Balance; Abstract thought; Awareness of self; Resonance; Expectations; and Social aspect. I then made a new document and arranged segments by these codes. This process showed where similarities and differences appeared within each group of segments. Some segments were re-coded. The next step was to begin describing each group and to see where codes might be related or linked (Tesch, 1990). In some cases, a code became a sub-group of another. By virtue of numbers, some codes began to emerge as dominant and some as minor. Play quality, information quality, play form, elements of narrative, and play

message held the majority of segments. Fewer segments were included in awareness of self, expectations, and social aspect.

I continued to comb through the segments to see what stood out, or whether some seemed to have their own category, or again to see if any others had similar attributes. In this way, data was checked and re-checked to see if original thoughts were supported (Karchmer, 2001). This process allowed my thinking to develop about the data. I was trying to see if I had missed something on my first run through, details I had not noted at first but which were there. Meaning began to materialize as I brainstormed with myself on how to describe the data.

A broader distinction began to emerge of the various codes that were sticking together. They could be combined into two groups: assessment and story. Under "Assessment" I placed Play Quality (with balance); Information Quality; Play Form; General Enjoyment; and Social Aspects. Under "Story" I placed Subject of Narrative, Elements of Narrative, Play Message (with abstract thought), Awareness of Self (with resonance). I continued to tease out which codes were essential and whether there was a clearer distinction between the two groupings. For example, Resonance seemed part of Awareness of self, as participants were describing if and how they remembered the performance. They articulated an awareness of themselves in doing so, and those segments labeled Resonance became part of the code Awareness of self, the definition of which in turn was expanded.

Assessment

The definitions of the two major types of codes are as follows. For Assessment, the codes within this category were generated from participants' responses that related to their opinion of the performance experience. For some this meant a general sense of enjoyment, for others their opinion was based on qualities of the performance, for others it was based on a judgment of the content or information of the performance, and some focused on the theatrical form itself. A small group of participants judged there to be a balance between information and entertainment.

<u>Story</u>

The codes placed under Story generated from responses that focus on the subject of the performance, or elements of the narrative, the message of the performances, and what the performance's story provoked them to think about. Responses that included an inner focus, such as speculation as to why the participant responded as they did to the story, were included here. See Figure 3.3 for a chart of the typology.

Figure 3.3.

Typology Chart

Assessment	Story
Play quality	Subject of narrative
Informational quality	Elements of narrative
Play form	Play message
General enjoyment	Awareness of self
Social aspect	

To clarify, Assessment and Story represent broadly an external, about the performance, and an internal focus, about the person. Much like Rosenblatt's continuum

for aesthetic and efferent, the differences between the external and the internal are not absolutely distinct. Rather they are representative. All responses that were located under the Assessment type are not necessarily only external and may carry some attributes of internal thinking, and vice versa. For example, the following response is coded under Play Quality and yet, also expresses an Awareness of self in relation to the performance that can be considered internal:

...how a person could perform and put themselves in a situation like that, to where you could actually feel them, just as it was going on at that particular moment, like you were there, at that place.

(KHS, code #42, follow up interview January 15, 2007)

Codes for Meaning

I then went through a similar process for what meaning was created. What was selected for attention by extension can be interpreted as being meaningful in some way to participants. Therefore, the initial codes that were developed can speak to areas that have meaning for participants. Based on this logic, the quality of the information in the performance has meaning for participants. The quality of the information impinges on whether it is believable in the eyes of the participant. However, as I worked with the data, several additional codes emerged from the segmented data to describe what meaning was created. These I put into the third column of the table. Following the same process of constant-comparative analysis, these codes provided another layer concerning what meaning was created. I have identified them as follows: Authenticity matters, It connected to me/my experience, and I was transported. In order to look at the data grouped by these codes, I created a separate document, which spanned across the other

set of codes. For example, a response coded as "Authenticity matters" could be part of play quality or information quality, or any of the other set.

In defining it, "Authenticity Matters" included responses that addressed issues of authenticity, or a belief in an aspect of the performance. For example, the actor's accent or way of talking was cited as feeling authentic, as was the content of a performance.

Responses coded under "I was Transported" included any that referenced the experience of a shift in reality, or a loss of awareness of being in the museum. Often, in these responses participants attributed a feeling of realness to the performance.

The largest number of responses in this set were those coded as "It connected to me/my experience". These were responses that interpreted a familiarity between their own personal experience and that within the performance. Particularly, veterans of World War Two who saw the performance, *Look for my Picture* at the KHS, expressed a connection to the story, and to the character in the story. The findings of the analysis are detailed in Chapter 4.

Summary

This study was designed to understand the nature of response from spectators who saw a museum theatre performance. Visitors to two museum sites volunteered their participation and provided survey, focus group interview, and follow-up interview information. Participants articulated their responses to one of five different performances in the two sites. Data from five different instruments (pre-show survey, post-show survey, focus group interview, follow-up interview, observation) was collected, compiled

and analyzed. Focus group interviews were transcribed. Data segments were identified in Question E from the post-show survey, focus group interviews and follow-up interviews.

In trying to understand the nature of response from spectators who saw a museum theatre performance, it was helpful to utilize aspects of transactional theory as guides for analysis. The data collected for this study included quantitative and qualitative information. Quantitative data, such as how many participants checked "believable" versus "not believable" in relation to the performance, was compiled and calculated. Statistical analysis (Spatz & Johnston, 1989) was employed to determine significance of differences. Demographic information to describe the sample was also compiled. A process for analyzing qualitative data was developed, in part through the lens of transactional theory, through code building and constant-comparative analysis. Aesthetic and Efferent codes were used to sort the data. Through this process a typology of the data was built and headed by the themes: Assessment and Story. An additional process of coding was developed in relation to the question of what meaning was made. In the next chapter I detail the findings from this analysis.

CHAPTER 4

FINDINGS

In Chapter 2, I described how my understanding of performances in museums is informed by my conception of museums, meaning, emotion and empathy, and the action of reading a text. In my review of the literature on meaning and museums, I detailed how meaning is shaped by time and distance. The contemporary shift to a meaning-making paradigm in museum theory opens up the possibilities for multiple meanings to be constructed by different spectators rather than a single meaning to be transferred from text or author to audience. It expands beyond the notion of one immutable truth, leading to variation in the interpretations of meaning. In this chapter I will show how this is apparent in the data.

In my discussion in Chapter 2 on the subject of emotions, I situated and defined affect and emotion and their importance in this study. I showed how various scientific studies support the notion that emotions are essential to our full range of cognitive abilities, which raises the importance of affective processing and shows the centrality of its interaction with cognition. I characterized empathy as a key vehicle for emotions and detailed how we may be wired for empathy through such biological phenomena as mirror neurons. A number of the studies I included suggest that the reason for being empathetic

is to learn about the world socially, via other people, through our emotional pathways. There are various ways that empathy is evident in the findings of this chapter. Drawing on the theoretical framework of transactional theory (Rosenblatt, 1978), I conceptualized an active spectator who makes meaning in response to a performance in a museum based on their prior knowledge and experience. Finally, I illustrated how various aspects of transactional theory connect to watching a performance, and then in what areas watching a performance is not the same as reading a book. In the findings of this chapter, I will analyze the data to show how these ideas are supported.

In order to understand the nature of spectator response to a performance in a museum, participants of this study were asked to write and discuss their responses to performances in the Kentucky Historical Society (KHS) and the Museum of Science, Boston (MOS). I use the acronyms KHS and MOS to denote the sites.

In this chapter, I begin with a description of the sample, and I present the data from their responses arranged by instrument. I am starting with a description of the sample because it is often assumed that the audience for museum theatre is exclusively children, but as can be seen in the sample spectators were a diverse group in terms of age. I have analyzed data through both quantitative and qualitative methods, and I approach findings from the quantitative data before the qualitative in order to first show statistical results are then teased out in participants' words.

The various instruments of the study were completed by different numbers of participants. The pre-show survey (see Appendix B) was filled out by 198 participants (61 from KHS, 137 from MOS). A total of 163 post-show surveys were collected from

visitors who saw shows at the Museum of Science and the Kentucky History Center, (102 from the former and 61 from the latter). At the KHS, six focus group interviews were conducted with 12 participants. At the MOS, nine focus group interviews were conducted with 19 participants. For the follow up interview, 24 participants from the KHS responded (15 by phone/9 by email) and 19 participants from the MOS responded (12 by phone/7 by email).

One caveat to these numbers is that participants often left parts of each instrument incomplete, which meant that often the *n* per instrument was different by question.

Because the study sample was small, incomplete instruments were still used, unless more than half the instrument was not completed. Four pre-show surveys and three post-show surveys were not used for this reason.

Instrument	Number of	Split of sample by site
	sample	
Pre-show Survey	198	61 KHS/137 MOS
Post-show Survey	163	61 KHS/102 MOS
Focus Group Interviews	31	6 KHS/9 MOS
Follow Up Interviews (phone)	27	15 KHS/12 MOS
Follow Up Interviews (email)	16	9 KHS/7 MOS

Table 4.1.

Totals for each instrument and site

Description of the Sample

The pre-show survey provided some demographic information to describe the sample. The mean age of the combined sample from both sites (n=198) was 40 years old

with an age range of 8 to 85 (see Table 4.2). I calculated the median age for the sample, which was also 40 years old. Having the median and mean the same indicates that there was a considerable group in their late thirties and early forties. There was the same proportion of children under the age of 18 (20%) in both cohorts, but there was a smaller proportion of senior citizens (60+) in the MOS sample (9%) than in the KHS (32%). Part of that difference may be attributed to the fact that a seniors group made up a majority of one of the performances at the KHS. Children under 18 were invited to take part in the survey only with parental consent and presence.

There were more females (53%) than males (44%), with 3% of undeclared gender (see Table 4.3). Only 16% of the sample were members of the organization to which they were visiting. The remaining visitors were either non-members or undeclared. 36% declared themselves tourists, while 64% did not. This created a large group that was neither tourist nor member, who perhaps lived in the area and attended the museum without becoming members. For this study, if they had been members, it might have pointed to prior experience with museum theatre. If they were tourists, there would be less possibility of having prior experience with it. One limitation to the study is that I did not ask if participants had any prior experience with museum theatre. What is clearer from these numbers is that only a minority of participants consider themselves theatregoers at all (34%). This was especially true for those in the KHS cohort with only 21% declaring themselves theatre-goers. There was a higher proportion of participants in the MOS cohort who declared themselves theatre-goers than in the KHS cohort. This distribution of reported theatre practices suggests to me that the Museum of Science

sample had more experience with going to the theatre than did the Kentucky Historical Society sample.

mean age	40 years old
Range	8 to 85
Children (-18)	20%
Senior citizens (60+)	MOS (9%); KHS (32%)

Table 4.2.

Age of Sample

	KHS	MOS
Gender		
Male	49	42
Female	49	55
Undeclared	2	3
Theatre-goers	21	47
Members	6	20
Tourists	47.5	31
n	61	137

Table 4.3.

Characteristics of Sample in Percentages

The description of the sample has illustrated the following: the sample from the MOS is larger than that of the KHS in pre- and post-show surveys, and focus group interviews, but somewhat smaller in the follow-up interviews; there were slightly more female participants to male participants; there was a large range in the age of participants in both cohorts, but the KHS had many more senior citizens in its sample; there were few members to the site in either sample; only a small percentage of participants described

themselves as tourists; and the MOS sample had more theatre-goers than did the KHS sample, but overall, only a minority described themselves as such. This was a diverse sample in age, experience and geography.

Pre-show Survey Findings

Rosenblatt (1978, 2004) posited that there are certain non-verbal signs in a piece of literature that will signal to the reader that he or she should adopt more of an aesthetic or more of an efferent stance toward the writing. A stance denotes a predilection toward or expectation of how to interpret a text, and in this study, of a performance. Rosenblatt (1978)'s terms efferent and aesthetic can be used to denote the polar ends of a continuum of possible stances. One end, efferent, goes back to the Greek meaning, to take away. The other end, aesthetic, would be one in which ideas, feelings, and associations are brought to the surface. For readers, one non-verbal sign could be the short lines of a poem, which might prompt an aesthetic stance, while newsprint might prompt an efferent one. Following this reasoning, I argue a museum exhibit label might prompt a predominantly efferent stance, a play in a theatre a predominantly aesthetic stance. I recognize that stance may also be cued by other factors within the individual, such as personal inclination, and influenced by outside forces such as a school assignment. Another factor is context. It was not known which stance would be elicited by the museum context and moreover, by the presentation of a performance within it. So, I asked the question of participants' expectations to determine which end of the continuum participants would lean toward: efferent or aesthetic. I used the phrase "to learn" to signify an efferent stance, and the phrase "to enjoy" to signify an aesthetic stance. Admittedly, I now

recognize that I have implied a binary by limiting participants to only these two choices, into which some audience members might not fall. An open-ended question may have allowed for more variation and freedom in response, possibly increasing the number of responses. Another option would have been to use a likert-scale so that participants could choose where on the continuum from 1-6 they might place themselves.

Regarding their expectations for the museum visit and the performance (see Table 4.4), I found that although the percentages selecting each expectation are different, participants were actually no more likely to check to learn or to enjoy. Some people chose both, but because of the small number of cases of those who picked both to learn and to enjoy they have been dropped from the analyses.

	Percent (n)	X ² , (d.f.)
Museum		3.2 (1)
To learn	43.3 (78)	
To enjoy	56.7 (102)	
n	180	
Performance		0.264(1)
To learn	48.1 (89)	
To enjoy	51.9 (96)	
n	186	
* p<0.05		

Table 4.4.

Expectations for museum visit and performance

I offered a place on the survey for participants to write another option for their expectation or to make a comment. There were 38 participants who wrote comments on this line of the survey to explain their choice. Most of these (29) came from the MOS cohort, and of these 45% gave as a reason for watching the performance their children's

interests, e.g. "for kids to learn something" and "my son's interest...". This group of comments highlights the social nature of attending a museum with a group, often with family (Hilke, 1988; Diamond, 1986; see Hein, 1998). Of the sub-group who wrote comments, 37% wrote of wanting to both learn and enjoy at the same time, e.g. "Enjoyment is equal with my desire to learn"; and "I find learning enjoyable". These comments seem to indicate that some participants were inclined to refuse the apparent binary between enjoyment and learning, which is also supported by the small percentage of participants who checked both options on their survey. This segment of participant responses appears similar to the findings of Roe & Anderson (1993), who found that affect was involved in all types of museum visitors' motivations. Generally, people expressed a like for learning and found learning enjoyable.

In a comparison by gender (see Table 4.5), male and female expectations for the performance revealed no differences. Males and females were both equally likely to pick to learn or to enjoy.

Performance	males	females	χ^2 , (d.f.)
To learn	48.1	49.6	0.01, (1)
n	38	48	
To enjoy	51.9	51.4	
n	41	50	
n	79	98	

^{*} p<0.05

Table 4.5.

Expectations by Gender in percentages

As referred to earlier in this section, I was using transactional theory's notion of stances as a construct to understand and capture participants' expectations of the performance event. Over the years I have wondered about people's expectations of museum theatre, anecdotally hearing from visitors that their expectations were often along the lines of "Oh a play? This will be fun" or "Oh a play? Let's learn something." Part of my interest was in whether these expectations influenced the performance experience.

The results of this analysis suggested to me that participants might not all have expected the same sort of experience, with about half leaning toward enjoyment and about half leaning toward learning. There were some participants who refused to pick just one option and instead chose both. This small percentage of participants, combined with those who wrote comments about the complementarity of learning and enjoyment, suggests a fluidity between stances, which is in line with Rosenblatt's (1978) caution that the efferent-aesthetic continuum contains many different variations of both poles.

Later in my analysis I compare these pre-show survey results of expectations to post-show responses on surveys and in interviews. In the next section, I look at post-show survey findings.

Post-Show Survey Findings

Post-show findings are separated into data from Question E (that asked people to recount events they remembered) and data from all other questions, and it is with those findings that I will begin because I am starting with quantitative analysis. I began by analyzing the results from the two sites separately in order to compare them, and then

combined them. I will detail responses to each question in terms of the Kentucky Historical Society (KHS) and the Museum of Science (MOS), and then in aggregate.

The first question on the post-show survey (see Appendix C), "How did you react to any of the characters?", offered a set of four positive/negative choices concerning participants' reactions to the characters. Responders were invited to check any that applied. I centered the four choices in the middle of the page, so that the blanks where they could leave a check would be uneven. In doing so, I had hoped to discourage the mechanical repetition of checks. That would have been the case if each participant simply checked all on one side or the other, with no blanks or alterations. From the varied pattern of responses, however, it does not appear that participants made their choices by rote. Some participants only checked one or two choices. Some checked on either side.

Though the patterns of response were similar in both samples, there was a difference between them. With one of the four variables regarding character(s), the degree of difference between the KHS and MOS samples was found to be significant: believability, and it was found not significantly different on three variables: relating to character(s), finding character(s) likable, and finding character(s) informative (see Table 4.6).

Because of this difference in the two samples, it appears there is a relationship between where a participant saw a performance and whether they believed the character or characters. Those who saw the performance at KHS were more likely than those who saw the performance at MOS to find them believable. This was not the case for relating to the characters, liking characters and finding them informative. The majority of both groups checked that they related to characters, liked the characters and found them informative.

Response	KHS	MOS	χ2, (d.f.)	Total
Relate to Characters				
Related to	86.7 (39)	71.8 (51)	3.47,(1)	77.6 (90)
Could not relate	13.3 (6)	28.2 (20)		22.4 (26)
n	45	71		116
Liked Characters				
Liked	100 (52)	93.4 (85)	3.58, (1)	95.8 (137)
Disliked	(0)	6.6 (6)		4.2 (6)
n	52	91		143
Characters Believable				
Found believable	100 (57)	76.3 (58)	15.61*, (1)	86.5 (115)
Not believable	(0)	23.7 (18)	. ,	13.5 (18)
n	57	76		133
Characters Informative				
Found informative	100 (56)	94.3 (83)	3.28, (1)	96.5 (139)
Not informative	(0)	5.7 (5)		3.5 (5)
n	56	88		144

Table 4.6.

Responses to Character(s) in Performance in Percentages

There is a relevant study from the field of computing technology and artificial intelligence that analyzed data related to affective interactions between learners and synthetic characters in a virtual environment designed as interactive learning for children. Paiva, Dias, Sobral, Aylett, Woods, Hall, and Zoll (2005) looked at the aspects of synthetic characters that allow learners to believe in them. They posit that the expression of emotion by the characters and establishing empathy in the learner are important factors in making a character believable. Two other aspects play into this mix for believability: autonomy and personality,

which I believe also inform this study relating to what participants articulated about the actors' abilities. I go over the actor's abilities in more detail in a later section of this chapter.

Fewer participants in the MOS sample found the characters believable, and fewer still found they could relate to characters. I am suggesting that these two aspects of the characters might feed into each other. If a participant did not relate, perhaps this affected whether or not they believed them. What also appears from the findings is that liking, and finding a character informative, may not be as connected to believability as relating to the characters.

The next question (#D) was the same but in respect to the situations presented in the performances, rather than the characters. The only significant difference between responses in the two samples (see Table 4.7) was with the variable of believability. Otherwise, similar patterns of response that were seen with regard to characters also appear in the two groups in response to situations presented in the performances. The KHS sample was significantly more likely than the MOS sample to find the situations believable. There were no differences between sites on the relating to situations, liking them or finding them informative.

Response	KHS	MOS	χ2, d.f.	Total
Relate to Situations				
Related to	86.4 (38)	80.0 (56)	0.76, (1)	82.5 (94)
Could not relate	13.6 (6)	20.0 (14)		17.5 (20)
n	44	70		114
Liked Situations				
Liked	100 (49)	95.3 (82)	2.35, (1)	97.0 (131)
Disliked	(0)	4.7 (4)		3.0 (4)
n	49	86		135
Situations Believable				
Found believable	100 (55)	84.2 (64)	9.56*, (1)	90.8 (119)
Not believable	(0)	15.8 (12)	,	9.2 (12)
n	55	76		131
Situations Informative				
Found informative	100 (52)	92.1 (70)	3.38, (1)	95.3 (122)
Not informative	(0)	7.9 (6)	,	4.7 (6)
n	52	76		128

^{*} p<0.05

Table 4.7.

Responses to Situation(s) in Performance by Percentages

Collectively, there was a high percentage of participants who liked the situations presented in the performances. For the majority, participants found situations in the performances informative and believable, and situations to which they could relate. These four variables were offered as possible paths by which participants might engage with a performance.

Initially in my analysis I looked at the percentages as a measure for perceived importance by the participant: if they checked one category but not another, this suggested they had a stronger reaction in the checked category. This line of thinking suggested that likeability, whether a person has a positive opinion or regards an event as pleasant, was important with regard to both characters and situations presented in these performances.

Correspondingly, finding characters and situations believable and informative also appeared important. Less central was whether participants found they related to the characters or situations. However, I came to question that logic, based on the work of Paiva et al. (2005). Their study suggests relating, or being empathetic, opens up the possibilities for believing in the character or situation. Liking the character or finding them informative were not noted as factors. Based on my analysis of the percentages and the possible relationship between relating and believing now I conjecture that liking and finding informative are the easiest categories to respond to, while relating or empathizing might be more difficult to form an opinion about or decide. It could be that lack of emotional connection for some in the MOS sample, noted below in the results of Question G, did not engender relating or empathy.

Bypassing data from Question E for the moment, data from Question F focused on participants' general response to the performances. They were asked to rate their overall reaction of how they felt about the performance by circling a number from 1-6 on a Likert scale (1=highly negative/6=highly positive). While there was a significant difference between means across the two samples (see Table 4.8), the collective mean for overall response of 5.19 out of 6 indicates participants felt highly positive about the performances. This positive response echoes the high percentage of participants who liked the characters and situations, and is elaborated on in the data from the next question.

As part of my triangulation of the analysis, I used observations in addition to the survey. These observations also documented positive response from audiences. In most performances, audiences exhibited behavior such as showing attentiveness by quietly watching, following the action of a play physically by walking from one performance area to

another during a show, laughing, applauding, and talking with performers after a show.

Because of the open nature of a museum theatre performance, the most obvious behavior indicative of dissatisfaction was leaving the performance. I observed this only at the Museum of Science, which had larger audiences and larger audience spaces than the Kentucky Historical Society. This also substantiates the less positive overall reaction from the MOS cohort.

Question G asked participants to classify the performance in terms of factual information and emotional content on a Likert scale of 1-6, with 1 being no factual information or emotions/feelings, and 6 being a lot of factual information or emotions/feelings. Again, a *t*-test showed significant difference between the two samples (see Table 4.8).

	Me	ans	
Measure	KHS	MOS	t-test
1. Overall reaction	5.75	4.63	8.10*
n^1	59	100	
2. Factual content	5.63	5.09	4.13*
n^1	59	101	
3. Emotional content	5.72	4.58	6.96*
n^1	60	97	

^{*} p<0.05

Table 4.8.

Responses to performance overall (Question F), factual & emotional (Question G) by means

The KHS cohort scored performances significantly higher in terms of both factual and emotional content than did the MOS cohort. Together with the scoring of the overall

¹based on number of completed responses

reaction, it suggests to me the KHS cohort had a stronger positive experience than did the MOS cohort. Combined with the prior analysis, this further suggests a relationship between site and experience.

Looked at in aggregate, the ratings for factual information (5.36) and emotions/feelings (5.15) indicate these performances were perceived by the majority of participants as holding a high level of informational and emotional qualities. This is reaffirmed in the interview data where information quality became a descriptive category of participant response, and affect became a sub-category from follow-up interview data.

Question H (see Table 4.9) asked whether the performance surprised participants, and if so, in what ways. It offered a line for them to write an explanation. In these questions I created two more binary choices. There was no significant difference between the two samples in response to whether participants were surprised Overall, more participants were surprised by the performances than were not.

Percentage reporting yes			
Measure	KHS	MOS	χ2 (d.f.)
Surprised	73.8 (45)	64.6 (64)	1.45, (1)
Not surprised	26.2 (16)	35.4 (35)	
n^{-1}	61	99	
Expectations met	92.9 (52)	80.7 (71)	4.07*, (1)
Expectations not met	7.1 (4)	19.3 (17)	
n^{l}	56	88	
* p<0.05			

¹based on number of completed responses

Table 4.9.

Responses to Questions of Surprise and Expectations Met in percentages

This question about surprise related to which expectation participants checked in the pre-show survey and was where I anticipated seeing any evidence of a shift from their original stance. I had hypothesized that I might see responses such as, *I came in to learn*, but ended up really enjoying myself, or the opposite. While more varied than that, some participants' comments suggested possible movement or expansion from one stance to another (see Table 4.10). For example, it can be inferred from the comment, "Didn't expect much but it was very good," that this participant did not expect to enjoy the performance very much, but shifted to a more aesthetic position as he or she watched. Equally, another participant's comment, "It was more informative than what I expected," indicates a shift in response from aesthetic to efferent.

Codes	Number of	Representative comment
	comments	
surprise that it was good	13	"Didn't expect much but it was very
		good"
surprise at learning new	10	"It was more informative than what I
information		expected"
surprise at the use of theatrical	6	"Totally unexpected way of relaying
form		the story"
surprise that it was humorous	5	"More humorous than I thought"
general surprise	3	"It was not what I expected [it] to be"
surprise at technical aspects	2	"The movies that went along with it"

Table 4.10.

Codes for why participants were surprised

Of the 58 participants who commented on whether they were surprised only four came from the KHS cohort, which was likely due in part to the late addition of the blank line to write a comment on the survey form. Fifty-four of the 58 expressed why they were

surprised and four expressed why they were not surprised. From the larger group, the majority (85%) expressed a pleasant surprise. I sorted the comments into several codes generated from the data, each with a representative comment. I was unable to generate codes for three comments due to lack of clarity. One participant was surprised at the actor's emotions.

Surprise was cited as a negative for nine participants. Within this group, two did not appreciate the humor used in the show, ("More slapstick than expected") and six expressed a need for more science or history content in the show, ("Expected more than just lightening") though one of these professed to have enjoyed the show still. The reasons given for a lack of surprise by participants varied by the individual. One expressed no expectations, one knew the information already, one felt it fulfilled its description as comical, and in the last the meaning is unclear.

Returning to Table 4. 9, Question #I asked whether the performance matched their expectation(s), providing a line to express in what ways it might or might not have done so. There was a significant difference between the two samples' responses (see Table 4.9). More participants in the KHS cohort checked that the performance matched their expectations than those in the MOS cohort. This finding contributes to my prior analysis that the quality of the experience was perceived more positively at the KHS. Collectively, the majority of participants (85.4%) felt that the performance matched their expectation. As with the prior question on surprise, participants provided some clarity about their choices by writing a line of explanation.

Participants wrote 87 comments regarding expectations, which meant more than half (54%) of all participants in the study responded to this request for a comment. I surmise from this high rate of response that many participants wanted to make sure their reasons were clear for deciding that their expectations were met. Fourteen comments fell under those who marked that expectations were not met, and 73 that expectations were met. Perhaps surprisingly, not all of the fourteen comments in the former group expressed disappointment or dissatisfaction. Two comments were about how the performance exceeded expectations. One participant's expectation presumed the performance was going to be childish, but it did not meet that expectation. The comments that did express dissatisfaction (6 out of 14) concerned the need for more enjoyment or learning from the experience. Two felt the performance was sadder than expected.

Comments from those who said the performance met their expectations I coded first along the "enjoyment" and "learning" continuum (see Figure 4.1). In the largest percentage (49%), I coded comments as representing enjoyment. Next, I coded 19% as representing learning, and finally 8% as articulating both enjoyment and learning. Of those comments not included in this main group, six expressed feelings related in some way to the content of the performance. All of these were from the KHS cohort. Five comments were generally positive, and three added to those who felt the performance exceeded their expectations. These comments made clearer the thoughts of the high percentage of participants who marked that their expectations were met by the performance. I also interpret from this that many of those who entered into the performance event expecting to enjoy it, did.

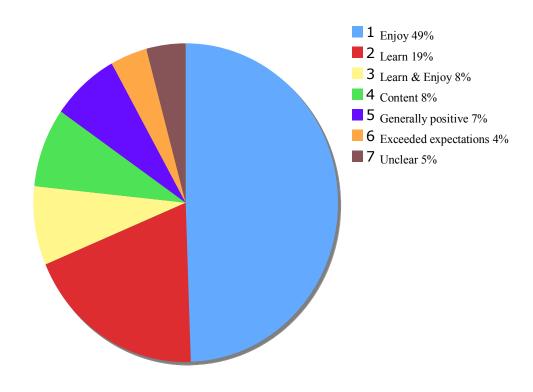


Figure 4.1.

Pie chart of comments for expectations met in percentages

Question E data

A total of 163 post-show surveys were collected from participants at the two sites.

Question E asked participants for three events/items/moments they most remembered in the performance. From the 163 surveys, participants wrote in 344 events, items or moments. I requested this data to see if any patterns emerged as to which parts of performances stuck out

for participants. It was purposefully open-ended, hence my phrasing of "events, items or moments" to emphasize to participants that any aspect of the performance they highlighted was appropriate. Participants provided mostly one to five word answers, though some were longer sentences. Consequently, most of these segments of data were simple and straightforward, and did not need to be shortened into segments. The question of what was most remembered from the performances, phrased slightly differently as it was verbalized rather than written, was used in both focus group and follow-up interviews in order for comparisons to be made across the instruments. While the data gathered from the post-show survey was often less refined than spoken responses articulated by participants, similar topics or aspects were brought forth from each of the three instruments.

Of these 344 items written in the survey, 87% referred to factual content or action within the performance that I coded as efferent; 13% referred to affective content or action within the performance that I coded as aesthetic. I decided to use transactional theory's efferent-aesthetic continuum as an analytical framework, because participants in this study clearly were both taking away information through efferent responses and noticing the quality of the performance or expressing an aesthetic response. However, though I have separated data into two categories, I am not looking upon participants' experience as either/or. It was often both, with the suggestion of possible movement within the continuum. Furthermore, after scanning the data, it did not appear that participants' answers were necessarily all in one category. If they wrote three events, items or moments as requested, often they had one aesthetic to two efferent statements. Only one participant's three statements were all coded as aesthetic. When I compared expectations with comments, it was

clear that many of those who stated an aesthetic stance responded with fact-based efferent comments, which contributed to the higher percentage of "efferent" comments. The response data does not necessarily match the participants' expectations proportionally. Rosenblatt's (1978) argument is relevant, that conceptualizing efferent and aesthetic stance should not be an either/or proposition, but rather a dynamic continuum in which the reader may move between different degrees of efferent and aesthetic stance. Some participants may have moved from their original stance, to enjoy, to a more efferent stance, to learn, possibly without any awareness of doing so.

When analyzed by performance, the majority of items related to the Museum of Science play, Frankly Franklin (156 of the 370); the fewest items related to the Kentucky Historical Society's Diary of a Depression (21 of the 370). I believe these numbers reflect data collection opportunities rather than level of response. I collected data after only one performance of Diary of a Depression and nine performances of Frankly Franklin. Divided up between the nine performances, Frankly Franklin averaged 17.33 comments per show. Audience size was also different. There were 29 people in the audience for Depression, while the average audience size to Franklin was 50. This indicates a higher rate of response from those who saw Depression than those who saw Franklin. This could have to do with the difference in audience movement between sites. At the MOS there was a lot of movement during shows, while there was very little movement at the KHS.

The performance that had the highest percentage of aesthetic items was KHS's Look for my Picture (29%). Aside from Diary of a Depression, which only had one

aesthetic item out of 21, the performance that had the highest percentage of efferent items was *Frankly Franklin* (92%). Looking at the data by performance begs the question of whether responses were dependent on a particular performance. Later in this chapter I analyze responses from *Frankly Franklin* separately to explore this question.

Though transactional theory had enabled me to begin analysis of the data, I decided I needed to analyze the data differently because additional patterns had begun to emerge. My next step was to code the data in terms of what was selected for attention by categories developed through constant-comparative analysis. These codes were first developed in the analysis of follow-up interview data and then applied here. The predominant category in this set of data was Elements of Narrative, into which 80% of the most remembered events/items/moments could be coded (see Table 4.11). These included any reference to the action or topic of the story within the performance, such as "sinking of Titanic", "Lists of Franklin's accomplishments", and "Talking about his friends in the picture". For the most part these comments regarded the primary action of the story, such as the Titanic sinking in *Unsinkable? Unthinkable!* or "Landing on the island" in Look for my Picture. I interpreted two sub-groups within Elements of Narrative, but I removed them from Table 4.11 because there were no sub-groups from the other categories, giving the table an awkward appearance. The first subgroup (10%) of comments, which I called Extraneous Stage Business, referenced stage business such as swatting flies, which happened only in Frankly Franklin.

Categories	Percentages
Elements of narrative	80
Play Quality	12
Affective	3
Information Quality	2.5
Play Message	1.5

Table 4.11.

Categorized responses of best-remembered events/items/moments in percentages

The second sub-category (9%) I created out of Elements of Narrative was comprised of comments about the primary action of the story in relation to a specific character. These I described as Details of Character and included such comments as "The first scene w/ the little boy. Running around being rebellious yet somewhat obedient," "When he talked about how he had to work for what he owned," and "Ben Franklin wondering about gas". These comments appear to show how the participant related to the performance through the character. This also connects back to the first question of the survey about whether people felt they related to the character or not. This data suggests they may relate by observing details or aspects of the character. I also speculate that by noting small details, like the young marine's letter writing to his mother for those who saw *Look for my Picture*, participants realize that character more clearly. One participant wrote: "Letter home added depth". Later in the follow-up interviews, another participant articulated this same idea: "the wonderful humnan[sic] details provided for each of the characters spoke to my humanity" (email, December 4, 2007).

The next primary category I developed through constant-comparative analysis to describe what was selected for attention was Play Quality (12%). These comments regarded the quality of the following areas: the actor's abilities - "The look of seriousness on his face"; the productions' values (lights, sound, costume) or media - "Quotes on screen (enjoyed that!)"; and particular sections of the performance - "Introduction – very gripping". A few comments such as, "And the way he made you feel 'he' had really experienced that," while describing the actor's abilities, also suggest belief.

The rest of what was best remembered I put into three categories: Affect (2.9%); Information Quality (2.3%); and Play Message (1.4%).

In summary, the findings from the post-show survey reveal a mix of predominantly efferent responses with a smaller portion of aesthetic responses. Overall response to the performances was, for the majority, highly positive. Participants generally liked and believed in the characters and situations in the performances, and found them informative. Smaller percentages of the majority also found they could relate to the characters and situations. Performances were judged to have a balance of informational and emotional content, generally aroused pleasant surprise, and met or exceeded expectations. The most remembered event/item/moments from the performances were informational elements of the narratives that I categorized as efferent.

Focus Group Interviews

Further exploring the aesthetic and efferent stances taken by participants, I segmented (Tesch, 1990) data from post-performance focus group interviews into short sections and then coded into aesthetic or efferent groups.

From fourteen interview transcripts, I segmented 141 portions of response. In coding for aesthetic or efferent responses, 61% of these segments were aesthetic and 39% were efferent, with two coded as both aesthetic and efferent. The primary areas of inquiry for the focus group interviews were similar to the post-show survey: responses to the characters and situations in the performances, and elements that were highlighted in participants' minds, but in interviews, responses were more wide-ranging. Because there was an expansion of the kinds of response gathered in the focus group interviews and the groups were different sizes, I could not draw comparisons directly from Question E data to focus group interview data. However, this expansion in the responses allowed further exploration of what constitutes an efferent or aesthetic response, which I will now delineate with examples.

Efferent Response

I used Rosenblatt's (1978) definition of efferent, to take away, which to guide my coding. In the following examples, participants focused on factual or informational aspects of the performance that held meaning for them. They took these pieces of information away. ²

Interview #6 KHS (August 26, 2006)

72-E C - ...what else stuck out for you? A moment or something that he said?

M - Let's see. The way he got treated, about how, making 80 cents a day...It was more like slavery, wasn't it?

Interview #8 MOS (September 29, 2006)

81-E C – What struck you about the play, anything in particular? W – I was interested in the Titanic, so I thought it was interesting.

As noted in Chapter 3: As interviewer, I am always marked with a C and those I am interviewing are marked with M for man, W for woman, M1 or M2 if more than one, and W1 and W2 if more than one. In Interview #11 with a family of four, they are represented by F for Father, M for Mother, OD for Older Daughter, YD for Younger Daughter.

Interview #11 MOS (September 30, 2006)

104-E C – Was there anything that stuck out for you in the show, that you didn't know before maybe?

Father (F) – Yeah, I want to know how ... to cook a turkey? (laughs) I'm serious, all the neat little things you find out about that you didn't really know about.

Interview #11 MOS (September 30, 2006)

115-E C –What were the things that stuck out for you in the show? Do you have 3 aspects of the show that stuck out?

Older Daughter (OD) – That he made more mistakes.

C – That he made more mistakes, Franklin?

Mother (M) – (to OD) It's okay to make mistakes while experimenting or being curious?

OD – I didn't know he made that many mistakes.

In each of these examples, the participant has articulated taking away some piece of information about the content of the performance. There were also comments coded as efferent that describe the performance as factual:

Interview #2 KHS (August 5, 2006 12:30)

24-E C- Right. Does it speak louder, does it mean more knowing that this was from their archival material, that is was all real, many of the words were this guy's words, Does that speak louder to you, do you think?

M1- That's part of it. It's factual.

Aesthetic Response

For Rosenblatt (1978), an aesthetic response is one in which ideas, feelings, and associations are brought to the surface. By extension, I argue that in a performance, sounds, images, and words can be part of such responses, as well as spectators' awareness of what happens within themselves in response to the performance. In fact, several participants talked about what happened to them as they watched the performance. While not every aspect of aesthetic response can be seen in comments, participants articulated numerous dimensions of aesthetic responses to performances.

Data from the Focus Group Interviews further illustrates what constitutes an aesthetic response. For example, in the following participants' comments I identified empathetic responses. The first participant places himself in the role of the character, imagining the circumstances of that character's world. The second places herself in sympathy with the character's mother. Both express feelings and an awareness of themselves.

Interview #4 KHS (August 11, 2006)

52-A M-I thought the last character...

C – The union organizer?

M – yeah, I would be very, I don't know if I would have the bravery, but he showed the bravery that it might take...

C – to have done that?

M – Yeah.

Interview #5 KHS (August 12, 2006)

59-A W – So I kind of connected to it through his eyes. And on a different level. And I think, as I wrote, more as a mother. The fact that he was writing home, it was just very kind of emotional for me,

These participants articulated a response in direct relation to their views of themselves. In the next set of examples, participants responded to sounds, images, and words.

Interview #1 KHS (August 5, 2006)

8-A W- And when he stood up against the mural, and actually, it was like he became real, you know, you look at pictures in books and incredible photographs, but it was like that person became real, and that was just really striking. Um, there was another thing. His description of the flag raising, of just the emotion of it, and then the, how everybody was yelling, the, you know,

Interview #1 KHS (August 5, 2006)

9-A C – Do the sound effects have anything, ?

W – yeah.

M- Yes.

W- I like that, it just made it more, it helped you imagine what that was like, you know, just the excitement of it, the awe of everybody, and how, I can't think of the right word for it...

Interview #9 MOS (September 29, 2006)

102-A W - ...the combination of the songs...

C – how did the songs strike you? There are a few different little songs?

W2 – the songs were very nice.

C – You liked the songs.

W2 - It added to it.

W1 − Yes, It was very good.

Interview #11 MOS (September 30, 2006)

130-A M – but the Titanic thing was more like, she spoke slowly sometimes

C – Maybe it's the variation in speed?

M – Yeah. Sometimes she spoke slowly...

F - Yeah, if they go fast the whole time its like, ehhh...

In an effort to provide cohesion between the data from the Focus Group

Interviews and the Follow-up Interviews, I will now address the aesthetic and efferent
coding of the Follow-up Interview data before discussing where I moved away from the
efferent-aesthetic continuum and further coded the findings from all interview data.

Follow-up Interviews

I coded the data from Follow-up Interviews into efferent and aesthetic categories by site first (see Table 4.12). Again, I distilled the data down into short segments (Tesch, 1990) in order to be of more manageable size. There were more segments from the KHS cohort than the MOS cohort. Coding in this way showed divergent results between the two sites. The MOS cohort responses had more segments that were coded efferent than aesthetic, while the KHS cohort response segments were coded inversely, more aesthetic than efferent. The differences between groups were significant.

	total	KHS	MOS	X^2 , d.f.
efferent	35.7 (97)	24.7 (40)	51.8 (57)	21.01*, (1)
aesthetic	64.3 (175)	75.3 (122)	48.2 (53)	
n (comments)	272	162	110	

^{*} p<0.05

Table 4.12.

Comparison of efferent vs. aesthetic segments coded from Follow Up Interview data in percentages

Like earlier indications from Question E data in the post-show survey that the individual performances might influence certain kinds of response, this comparison suggests to me clear differences between sites. Suspecting that the differences may relate to the play, *Frankly Franklin*, I have done a comparative analysis that will follow at the end of the findings.

As in the data from Focus Group Interviews, comments here provide numerous aspects of efferent and aesthetic responses. The following data segments illustrate efferent responses.

- 2- E (MOS) whatever else, it gives you the idea that this is the era in which something like this occurred and the information, to me, it sort of places it in history a little bit (December 11, 2006)
- 55 E (MOS) I learned a lot more about the sinking of the Titanic. I got some information, didn't know about the radio operator, and I saw the movie, I don't think it was in that (January 25, 2007)
- 81 E (KHS) I remember the union guy, the guy in the store and the young boy and how it affected him living in the camp or coal mine (January 15, 2007)

The next data segments show various aesthetic responses.

- 76 A (KHS) I was so convinced the actor was from Kentucky that I asked him what part of KY he was from and he said NC, I was convinced he was, he was really good (January 6, 2007)
- 109 A (KHS) Enjoyed it. I thought it was well done. The young man who played the part did a good job. (December 13, 2006)
- 32 A (MOS) It makes science come alive, for kids who maybe like history, more than your typical science demonstration, stage is open and inviting too, I think it's great that they do that at the science center, kind of meets some children who aren't science oriented, my kids like acting and drama

While transactional theory had provided a solid construct for analysis for a first step, it was necessary for me to move beyond it to examine the data from a more multifaceted perspective. In order to glean more insight into the meaning of these efferent and aesthetic responses, I sorted and coded further. Rather than work deductively with codes, I wanted to use an inductive strategy to better understand participants' responsiveness, and to capture uniqueness or complexity (Patton, 1990). I recombined the data from the aesthetic and efferent groups. Each piece of data was still marked as one or the other and I was able to see if any patterns materialized in the second round of sorting. As I laid out in the previous chapter, I developed an additional categorizing system for answering the question "What was selected for attention?" which is also one of my research questions. I detail patterns I discerned from this process in the next section.

What was selected for attention

I began by coding the larger set of data (277 segments) from Follow-up

Interviews, then followed with the 141 segments of data from the Focus Group

Interviews. From this process I interpreted two primary types of categories: Assessment

and Story (see Table 4.13). As I defined them in Chapter 3, Assessment codes encapsulate participants' responses that related to their opinion of the performance experience. For some this meant a general sense of enjoyment, for others their opinion was based on qualities of the performance, for others it was based on a judgment of the content or information of the performance, and some focused on the theatrical form itself. Story codes focus on the subject of the performance, or elements of the narrative, the message of the performances, and what the performance's story provoked them to think about. In the following chart I have inserted percentages to show how the segments of data were divided.

Assessment 54%	Story 42%
32% Play quality	21% Elements of narrative
9% Informational quality	11% Play message
8% Play form	4% Subject of narrative
3% General enjoyment	5% Awareness of self
2% Social aspect	

Typology Chart with percentages for Follow-up Interview data

Table 4.13.

Doing this dissertation has been a learning process. When I first began analyzing the data, I went overboard creating descriptive categories. Looking for patterns, I grouped comments into categories such as amused response or intellectualized response. After some thought, I realized these categories did not represent my focus on Rosenblatt's continuum. I then abandoned those categories and refocused my analysis on Rosenblatt's continuum. Analyzing the data first through Rosenblatt's efferent-aesthetic continuum enabled me to move to an inductive approach more systematically, creating grounded

categories that grew out of the data. I used two of my research questions as guiding structures, "What was selected for attention?" and "What meaning was expressed?" which came out of my theoretical framework.

In this second phase of my interpretation of the data, I utilized the methodological framework of Grounded Theory's constant-comparative method (Glaser & Strauss, 1967), which I defined in Chapter 3. This is the process of creating and recreating categories from empirical phenomena, of classifying and re-classifying "their content, their boundaries, and their relations to each other" (Bergman & Coxon, 2005, ¶2.6). Through this method, categories emerged from my repeated analysis of the participants' descriptions of their performance event experiences.

In qualitative methods, reliability for the generation of categories can be a measure of how appropriate, thorough, and honest the researcher is in their creation, and in how the researcher articulates a rationale for how the categories were produced. It is a subjective process, limits of which have been the subject of much discussion and debate in the field of qualitative research, as well as the merits, such as triangulation, a systematic method and transparency of process (see Lincoln & Guba, 1985; Wolcott, 1990). Bergman & Coxon (2005) describe some of the influences that shape the interpretative process of turning data into categories: "Interpretation will take place based on both the unique context as experienced by the interpreter, as well as by the matching of the novel or contradictory phenomena to socialized and encultured explanations that render the novel or contradictory understandable and coherent" (¶2.10). As they make clear, categories can be applied to anything that can be empirically captured, which in my

case included responses to performance events.

The specific process I went through was as follows. 1) I pasted all segments of the data into a spreadsheet with three columns on the right for coding. The first coding column held either an A for Aesthetic or E for Efferent from the first round of coding. The second column was blank, but headed with the question, "What was selected for attention?" while the third column was headed with "What meaning was expressed?". Beginning with the second column, I distilled from the data segments or short phrases, such as actor or complex thought, which I began to compare with each other. I worked inductively to place each and every piece of data. I moved segments around in the spreadsheet and put like responses into groups. For example, I grouped all references to actors together. I then began to create my codes. As I developed these codes, I went back and forth between what the segment of data represented and what the category was trying to express. For instance, statements by participants suggested they were focusing on the importance of the actor, which I expressed by creating the category Actor's Abilities, which I then shortened to Actor. 2) I interpreted similar ideas described in varying ways. For instance, I decided that phrases such as "It was so real," "like you were there," "It helped to make the picture come to life," "...taking you along this very emotional enactment," each describe the idea of participants being transported to a liminal (Turner, 1982), or "in between", reality through their experience of the performance. I interpreted a collective sense of movement from these phrases, hence the term "transported." I use the word liminal to describe the reality that is created in-between the performance and the spectator. The actor cannot really recreate a moment in history, nor can the spectator

travel in time, but provoked by the performance, the spectator's imagination can transport them to another reality, a liminal one that feels real. 3) Continuing with this example, I also considered alternative codes such as "life-like" or "becomes real". However, these lacked the sense of movement that I interpreted from participants' wording and wanted to capture in the code. 4) In creating a category, I set parameters by which pieces of data fit and did not fit. I wrote out descriptions of the categories to define these boundaries. I then combed through each segment of data to see if there were others pieces that fitted that code, grouping them as I did so.

An example of this process is the gradual evolution of the category "Play message." Initially, I created separate categories called, "Abstract thought," "From the particular to the universal" and "Play message." As I scanned the data of these three categories, however, I began to realize they all fit into the "Play message" category. Segments such as the one below have elements of abstract thought, and move from the particular to the universal, but also connect to the play's meaning or message, as in the case of this particular participant.

"The fact that these men-of all races and backgrounds-are all *Americans* [ital. in org] - who eat, sleep, work, suffer, fight and live or die together know intimate details about each other (or not in the case of the Indian)...again the humanity of it all." emailed response from KHS participant

The melding I did expanded the definition of the "Play message" category by also making one of the parameters the inclusion of complex thinking, which created a distinction from the categories, "Subject of narrative" and "Elements of narrative".

Below I delineate each category in descending order highest percentage to lowest and provide examples from the data. Play Quality and Elements of Narrative were the categories with the most responses. Social Aspect and General Enjoyment had the fewest.

There are two facets to the category Play Quality (90 out of 277). First is the level of quality of the performance, as in whether participants assessed it of high or low quality.

I just remember we were walking around and just came upon it, it was so dynamic, so much more impressive that we thought it was going to be, KHS cohort #41 (December 11, 2006)

Second are the particular qualities of the play cited by participants, such as the actor's abilities and talents, the storyline, and production values (costumes, props, music, and sound). Both facets are present in some comments, such as those focused on the high quality of the actor. My interpretation is that both senses of play quality impacted whether and how participants engaged with the performance, whether they interpreted it as believable and therefore "authentic," and would enable them to suspend their disbelief. The following responses illustrate how various qualities of the performance, such as costuming, acting, accent, and script, that were cited impacted their experience:

the uniform, looked at the boots and everything else he was wearing, his mannerisms, the way he corresponded all seemed very plausible. KHS cohort unknown number, (January 25, 2006)

I thought it was well done. Authentic of the period. KHS cohort #27 (January 6, 2007)

I was thinking my kids might laugh about it, they found the actress so stimulating, that was a big thing- that it didn't make my kids giggle, my daughter could get embarrassed by it, but she didn't, filtered it through my kids, the whole presentation intertwined nicely, nice going back and forth in time. MOS cohort #100 (January 6, 2007)

I was so convinced the actor was from Kentucky that I asked him what part of KY he was from and he said NC, I was convinced he was, he was really good, KHS cohort #36 (January 6, 2006)

The category Elements of Narrative (21%) is comprised of responses that reference a feature of the narrative, whether an action by a character, a moment in time, or a factual piece of information. Responses I coded here each connect in some way to the storyline presented in the performance. While similar to elements of narrative, I coded some responses Subject of Narrative because these comments focused only on the subject, (e.g. Ben Franklin, Titanic, Iwo Jima) and were less specific than elements within the narrative. Elements of narrative responses could also be about what the story provoked in the participant. Performances at the KHS followed more traditional narratives than did the MOS performances, both of which played with time. In Unsinkable? Unthinkable! the narrator moved between present to past in telling what is now known about the crash of the Titanic. In Frankly Franklin both characters were in the present, but also lived in Benjamin Franklin's day. Nevertheless, MOS participants, as well as KHS participants, remembered various aspects of the narrative. The following examples demonstrate this. The findings here support the notion that the narrative served as an organizing force in recalling the performance, as was found by Jackson, Johnson, Leahy, & Walker (2002).

I do recall how I learned that certain characteristics of the building of the ship, how they could have saved the ship from hitting the iceberg and why other ships could have survived such an impact. MOS cohort #100 (email January 2, 2007)

I also remember the little video about the kite and the key. I don't know why I remember this. MOS cohort #4 (email December 6, 2006)

I remember the actor being very active and portraying life in basic training, on the ship over to Asia, and striking the pose of raising the American flag. KHS cohort #21 (email December 11, 2006)

The next category is Play Message (11%). I separated play message from elements of the narrative and subject of the narrative because many of these responses were more complex or abstract. In these responses, the performance appears to me to have provoked participants to relate their thinking to similar situations, events, times in history, often in a progression from thinking about the particulars of the play to a larger, more universal thought. Play message responses can be thought of as extensions of subject and elements of narrative responses, and therefore, also substantiate the contention that narrative serves as an organizing force in recalling the performances (Jackson, et al., 2002).

there was something about it that stuck with me a long time and I'm trying to remember what it was. It was quite an emotional thing I think, real patriotism, those are the things that stuck out in my mind, really showed the persons' love for his country, his family, concern for his friends, and certainly quite moving, KHS cohort #14 (December 11, 2006)

In addition we are currently involved in a war which most of us pay little attention to and the performance reminded me that these are real boys, men, fathers and sons with lives, out there fighting for our country. The media has done a good job of desensitizing most of us to the realities of war- through their constant images and generalities...while the performance had just the opposite effect of striking a sennsative [sic] chord in me because of the wonderful human details provided for each of the characters that spoke to my humanity. KHS cohort #57 (email, December 4, 2006)

I thought it was just a way of grounding the idea that science is learned over a period of time, the information is built on history of previous things that people learn and I feel like to me it just gives it points of reference the way it was ceded, we've obviously built upon the knowledge that we gained at that time, I keep thinking, 'hey we've come a long way from there' MOS cohort #2p (December 11, 2006)

Each of these comments goes beyond just recalling the subject of or elements of the narrative and connects to a more complex or abstract thought. I am arguing that this category of response relates to Jackson & Rees Leahy's (2005) empathetic paradox, wherein they observed a narrowing of respondents understanding of the content of a performance. Rather than a narrowing in the Play Message category, I interpret a widening of participants' understanding, as I wrote, from the particular to the universal. What is more difficult to discern is what influence empathy had on these responses.

The next category is Informational Quality," (9%) which was comprised of comments that refer to informational content in the performances. These comments were about the presence and quality of the information, and some also articulated how this affected the participant.

I thought it was very real. They had their facts very straight. KHS cohort #23 (December 10, 2006)

I was struck by the presentation inside the "company store". It gave a very clear picture of how entangled the miner's family became with the "company". They depended on the "company" for everything. They used "scrip" in place of money and if they needed something between paydays, they could get it at the store and it would be deducted from the next pay. Often they didn't receive much money because they had already spent it. KHS cohort #35 (email, November 30, 2006)

It had more information than I realized. MOS cohort #100 (January 6, 2007)

I learned a lot more about the sinking of the Titanic. I got some information, didn't know about the radio operator, and I saw the movie, I don't think it was in that, MOS cohort #90 (January 25, 2007)

The following comment reveals a sense that the information was trustworthy because it was placed within the museum context.

I'm going to assume it was historically accurate. *Why?* Because it was in a museum. MOS cohort #112 (January 15, 2007)

This represents a type of blind trust that many museums used to take for granted from visitors, but more recently have come to question. In a well-known exhibition called *Mining the Museum* at the Maryland Historical Society, curated by the artist Fred Wilson, objects were displayed in ways that underscored how museums' choices affect how visitors make meaning from what they see (Corrin, 2004). Part of what this exhibition called into question was the idea that something is true solely because it happens within the walls of a museum.

The next category Play Form" (8%) encompassed all those responses that directly remarked on the theatrical form of the performance. Schoenmakers (1992) characterized such responses as being outside the fictional world of the performance, creating responses that had an "aesthetic distance" (p. 46). In these, participants expressed meaning through the play form. They generally assessed the play form as appropriate and helpful to their learning. These participants showed an awareness of the theatrical frame, and willingness to play (Bateson, 2004/1955) the game of theatre. They recognized the form of the information, a play, as impacting their response, and assistive in their sense making of the content and the exhibit. Some expressed the wish to see more plays performed for educational purposes. Their awareness of the play form added rather than detracted from their experience. For these participants, it was not a distraction to see the actor go in and out of character, or to change from one character to another.

I thought it was a good way to present it, kind of bring back memories, KHS cohort #41 (December 11, 2007)

he did a lot with a little, relatively simple but put the message across very well, appealed to the imagination, what film and television don't do, radio used to do

this, just bare necessities, it's very effective, we don't have to have everything realistic, KHS cohort #55 (December 13, 2006)

At the time, I thought it was a unique way of presenting things rather than offering a discussion on Franklin, MOS cohort #2p (December 11, 2006)

The next category Awareness of Self (5%) has comments that relate the performance experience to the participant's own. These participants' comments reveal how they placed themselves inside the experience and explain their responses in terms of who they are and how they were feeling. They have a meta-awareness of their own actions and identity in relation to the play.

me, I have a different perspective because I'm 65, KHS cohort, number unknown, (January 25, 2007)

I saw the WWII Iwogema[sic] performance and was very moved by it. I related to it on a gut level because I have 2 sons that could one day be sent off to war. KHS cohort #57 (email, December 4, 2006)

That said, I must admit that I was a bit tired when I sat down for the performance and so was not as attentive as I should have been. I don't think I am a very good representation of the quality of the performance that was given that day. MOS cohort #3p (email, December 6, 2006)

Of the last three categories, Subject of Narrative (4%), General Enjoyment (3%), and Social Aspect (2%), I am only going to attend to the last. I explained Subject of narrative with Elements of Narrative, and General Enjoyment comments were comments expressing a general sense of positive experience. The Social Aspect category was comprised of comments about interacting with others regarding the experience either before, during or after the show.

I think about it often and I talk about it with the kids, we have three grandsons. MOS cohort #90 (January 25, 2007)

the people that saw it, it was well received, I was with a senior citizen's group, On the bus, we all discussed it on the way home, no negative comments, everybody was very pleased with it. KHS cohort #23 (December 10, 2006)

What was your expectation? Entertaining. I had my 8 year old granddaughter, so yes, I was expecting entertaining. MOS cohort #112 (January 15, 2007)

The social dimension of visitors' experiences in museums has been explored and documented in numerous studies (Hilke, 1988; Diamond, 1986; see Hein, 1998). It is also a social experience to see a play, which is one of the differences from reading a book. As an audience member in this study, participants were part of the group they came with, if any, as well as becoming part of the group of those watching together. Sociocultural theory holds that humans build knowledge and understanding through conversation and modeling (Falk & Dierking, 2000). Through the dialogues created by these participants, a shared understanding, or "distributed meaning-making" (Falk & Dierking, 2000, p. 38) was encouraged and enabled.

I also observed this social dynamic in the focus group interviews with more than one person, when participants interacted with each other, even if they did not know each other. They shared recollections, remarked on others' behavior during the show, and supported each other's responses. Such interaction within a focus group illustrates reasons for their use as a method of gathering richer and more dynamic data, as opposed to only relying on individual interviews (Nassar-McMillan & Borders, 2002). One interaction between a married couple turned into a debate about the merits or drawbacks of using a play to address science.

In summary, there were several aspects of the performance that I identified within the data that were selected for attention in particular by participants. These parts spanned out from two major areas: story and assessment. I then coded again. In this next phase of coding for what meaning was created from had been selected for attention, I continued to look for further significance from each of the categories. I will now explain the findings with examples.

What meaning was created

In an attempt to discover further patterns or themes in the data, I developed another level of coding, creating sub-categories of the major categories already established. I followed the same process used in creating the prior categories. In one sense this took me an additional step away from transactional theory in terms of analysis, as my categories multiplied. There were, however, some sub-categories, such as Connected to Me/My Experience, Related to Character(s), and Affective, which elaborated further on parts of transactional theory. One sub-category that cannot be part of transactional theory is the Actor, since an actor is not part of the reading process. In most cases, I gathered these sub-categories of responses initially from one category, though there are several instances when the sub-category extends across multiple categories. In fact none of the sub-categories extended from only one category, but I have connected a primary category with the highest number to each sub-category. Several subcategories extended from the category Play Quality: Actor, Transported, and Authentic. Next, from the "elements of narrative" category emerged Connected to Me/My Experience and Related to Character. Finally, I gathered all comments that used emotional terms, like gripping, moving, or emotional, to form another category of

comments labeled Affective. Figure 4.2 is a diagram to show the progression of categories.

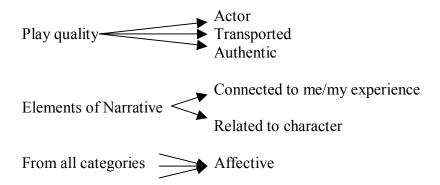


Figure 4.2.

Diagram of category progression

Thirty-five participants singled out the role of the actor in the performance event within the play quality category and two from elements of narrative. Using words like "multifaceted", "stimulating" and "versatile" to describe them, comments highlighted the power and centrality of the actor. These comments come from both cohorts of participants. They were impressed with the idea of an actor's performance, how someone plays another person, "how a person could perform and put themselves in a situation like that" (KHS cohort #42, January 15, 2007). These comments suggested some participants viewed the actors as completely committed to playing their roles. "I was terribly impressed by the dynamics of the actor and he put his [whole]..." (KHS cohort #41, December 11, 2006); and "I remember the woman and gentleman who did the

performance were very animated. They took their roles to heart. They kept people interested." (MOS cohort #31, January 6, 2007). In these comments, participants often attributed the power of the experience to the actor, as in this statement: "He had the capability of taking you along this very emotional enactment." (KHS cohort no # email November 30, 2006).

The actor's contribution to performance has long been argued in theatre theory. As Schechner (2002) lays it out, the primacy of the actor has shifted over time, affected primarily by the vision of the director. For instance, Russian director Vsevelod Meyerhold saw them as empowered and in direct line with the spectator, while the American director Richard Foreman has given very little autonomy to the actor (Schechner, 2002). Sauter (2004) explored the role of the actor in his examination of the theatrical event. In museum theatre research the actor has rarely been stressed. Primary focus has usually been on the content (e.g. Black & Goldowsky, 1998;) or the play form (e.g. Jackson, et al. 2002; Litwak & Cutting, 1996). What can be seen in these findings is the critical function of the actor, but it raises the question of whether there is a reluctance to study the acting of museum theatre that stems from a hesitance to highlight so mercurial a variable as an actor's talents.

Additionally, the work of Paiva, et al (2005) on how a synthetic character must be perceived as autonomous, among other aspects, to be believable connects here with the Actor sub-category. I think participants' comments about the actor's accent or language or emotions really get at a view of the actor as autonomous – able to inhabit the character and effect change in the participant's experience, illustrated in this comment: "...about

how he didn't stand up there and talk, it wasn't like a, he was a human person who was there and understood this." The actor's ability to express emotion, a sign of autonomy, was also noted several times, as in this comment: "Because the gentlemen playing the part had such emotion and played the part really great." These participants do not account for the director's involvement or the playwright's so much as the actor's. There is also the character's autonomy that is created by the actor. If the character is perceived as being self-governing, reacting and developing in the moment, they are believable.

Through language and accent, the actors were also perceived by some as contributing to the authenticity, another sub-category, of the performance, as in these comments: "her speech was quite good for the period, and farm language," and "I was so convinced the actor was from Kentucky that I asked him what part of Kentucky he was from and he said North Carolina."

The second largest of the sub-categories is "Connected to Me/My experience," which descended primarily from Elements of Narrative (11 comments), but also from Awareness of self (8), Play quality (5) and others for a total of 30 comments. This group of comments came solely from the KHS cohort. There were a number of participants who had a direct experience with the subject of the plays, either by being a veteran, growing up in a mining town, or growing up during the depression. Their comments refer to memories the performance stirred, their familiarity with various aspects of the narrative, and recognition of the difficulties from these eras. This category connects to the internal aspect of transactional theory's premise for an aesthetic reading – the reader connects internally what they read to themselves and their lives (Rosenblatt, 2004). In this study,

participants connected what they interpreted from the performance to their inner or private lives.

Two participants in particular had very closely related experiences to two of the plays. One woman had grown up in one of the mining towns and in the same time frame mentioned in *Into the Veins*. Her father had been a miner who had been hurt in a mining accident and eventually died of his wound years later. She said she felt like the play was a home movie. Here is one of her comments in the follow-up:

I can remember everything about him going to get the water and his mother was going to spank him, when he was in the commissary and when he was the union man, and it was all good, and I could associate with all of it. (KHS cohort #36, January 6, 2007)

A gentleman who saw *Look for my Picture* had been a marine stationed on Guam during the battle of Iwo Jima. He had transported wounded from the battle. He knew every bit of the story in the play. While these two had an uncannily similar background to the plays, there were also other veterans or people with ties to military: "I have a lot of family in the Military, so shows like that really hit home with me." (KHS cohort #4, email November 30, 2006); people who knew mining from living in Kentucky, "I'm from Kentucky and heard stories, but first time I'd seen them in a play, have relatives that work in coal mines, heard that, the way it was," (KHS cohort #40, January 15, 2007); and people who related to the depression through their parents "It portrayed life like it must have been in the early 20th Century when my parents were growing up." (KHS cohort #31, email November 29, 2006).

These comments indicate that something in the performance connected to these participants' experience or prior knowledge. Tilden's (1957) first principle of

interpretation states, "Any interpretation that does not somehow relate what is being displayed to something within the personality or experience of the visitor will be sterile" (p. 9). In examining Tilden's use of the word "sterile," I am struck by such antonyms as fruitful and productive. By providing an experience to which participants were able to relate, can these performance events then be described as fruitful and productive? Extending this further, is this fruitful and productive activity learning? Falk and Dierking (2000) developed a model of learning that includes a personal context by which one learns. Part of this personal context is the construction of knowledge through prior experience and understanding. The performances tapped into participants' prior knowledge or experience, thereby creating a resonance, or "a new memory and additional learning" (Falk & Dierking, 2000, p. 30), which aligns with transactional theory. This also connects to our understanding of experiential learning (Kolb, 1984). One experience builds on the next, and so on.

From the Play Quality category I also detected a group of comments (15) that emerged on the idea of Authenticity. Five of the comments came from information quality, and most were from the KHS cohort. These comments articulated participants' perceptions that the performance was authentic in some way and that authenticity was important to this experience. Some cited historical accuracy leading to authenticity.

a lot of authenticity, gave you some of the sense of the horror of it all, (KHS cohort no #, January 25, 2007)

[&]quot;I thought it was well done. Authentic of the period," (KHS cohort #27, January 6, 2007)

[&]quot;I thought it was very real. They had their facts very straight." (KHS cohort #23, December 10, 2006).

This last comment about it being real relates to another sub-category that has been labeled Transported. The feeling that the performance was "real" is expressed by participants in this sub-category. These 13 comments (9 from play quality) centered on the notion of either being transported by the performance or experiencing a shift in reality. These participants allowed their awareness of their present reality as a museum visitor seeing a performance to fade into the background and let the reality of the performance take precedence. As Rosenblatt (1978) put it, they were moving into and "living through" an aesthetic experience, and a theatre performance creates a temporary new space of reality – "liminal space" (Turner, 1982) betwixt and between the reality of the actor's onstage and the spectators' minds. It is to this liminal space that the spectator is imaginatively transported, since "being there," wherever that is, is not really possible. I suggest that these participants are exhibiting Feagin's "higher order of belief" (Qtd. in Krasner, 2006) by believing in the fiction, while also maintaining awareness of the special place of another reality. As well, comments like these speak to the connection Bundy (2003) describes as part of aesthetic engagement, in which people express an awareness, or possibly a meta-awareness or feeling, of being engaged. The following data are examples:

how a person could perform and put themselves in a situation like that, to where you could actually feel them, just as it was going on at that particular moment, like you were there, at that place (KHS cohort #55, December 13, 2006)

I remember that when I looked at this young man (actor), he wasn't there, he transposed himself immediately into the character (KHS cohort #15, December 11, 2006)

I like the actress who did it, her body motions, gestures, how dramatic and scary it must of have been, she acted out the different people, you got a really good sense of what it must have been like, what the people dining felt like, the engineer, the head of the ship, like you were there (MOS cohort #105, December 30, 2006)

Another sub-category that stemmed primarily from the Elements of narrative category is Related to Character. These 15 comments focused in particular on details of the characters, how learning the details of the characters brought out their "humanity". In *Look for my Picture*, some participants found the character honorable, at time interpreting extensively, as in this comment:

the training they had to go through, that stuck out, he enjoyed all the hardships he had to go through, being able to get the knowledge and skill, and how much enjoyment he got out of that, it wasn't like he was doing something he liked doing, he felt strongly that he wanted to do that. (KHS cohort #42, January 15, 2007)

In some, there is a thin line between the reality of the character and the reality of the play.

For instance, in this comment the participant refers to the character as if he was real:

He didn't want to do his chores, which no child wants to do, but he did them, he was a good boy (KHS cohort no # December 11, 2006)

...the part that I remember his background where he came from where he left his girlfriend, he was stationed overseas, I know that he wrote a letter, a very moving letter, he didn't make it back home, he was killed, He was really a great actor, displayed an excellent role,... (KHS cohort #14 December 11, 2006)

Here I turn to Paiva and colleagues (2005) with regard to the personality of the character that is noted in comments like the one above. Paiva et al. (2005) found: "A coherent character that acts according to its personality will be more believable than a character that has no long-term coherence in its behavior" (p. 254). This was a strength in

plays at the KHS for many participants. The characters' actions seemed to make sense with their personality.

The second part of this sub-category I want to address is the thin line between character and actor. There were a few comments that moved back and forth between talking about the actor and the character. The doubleness and conceptual blending that McConachie (2007) proposed are unconscious, neuronal-based capacities in spectators seem to be evident here in participant comments. In the second comment the participant jumps from talking about the character to the actor in the same breath, seemingly unaware that she is doing so.

The last sub-category I will detail is Affective, which I culled from various categories. I have chosen to use the word affective here, rather than emotional, because it indicates a broader scope of response and it is commonly used in the literature in museum studies (Anderson & Roe, 1993; Leinhardt and Crowley, 2002; Meredith, Fortner & Mullins, 1997; Falk & Dierking, 2000). There were 12 comments, all but one from the KHS cohort. This group of comments expressed an affective response or recognized the presence of an emotional quality in the performance. These responses support and elucidate the finding from the post-show survey, where participants rated the level of emotions/feelings high at 5.15 out of 6.

The presence of emotional response here connects back to the aesthetic pole of Rosenblatt's continuum. While in an aesthetic reading the reader's feelings are aroused by verbal symbols, in a performance the spectator's feelings are aroused by any number of aspects, including gesture, movement or language. In this first comment, it is the

action of raising the flag in the performance that appears to have aroused this participant's feelings. Another facet of an aesthetic reading is to have feelings that are part the reader's past experience brought to the surface by certain words in the text. In the third comment below, feelings about the spectator's past experience seem to be brought to the surface by the performance.

I know that when they raised the flag there on the island that was quite moving, (KHS cohort #14 December 11, 2006)

What did it mean to you? For me, it first time to see emotional and educational play at same time, (MOS cohort #89 January 6, 2007)

I was an old enough child to remember when it happened, living in that era, the play was very poignant, (KHS cohort #23 December 10, 2006)

The last aspect of this sub-category that I want to address is how these comments articulating some participants' feelings and emotions may also be evidence of participants embodying emotional displays they saw in performances. In particular, raising the flag in the performance of the battle of Iwo Jima is recreated by the actor, who struggles to raise the flag (with imaginary others) and is triumphant in a momentary flare of light, simulating the war photographer's camera flash. There are sounds that accompany the action, and cheers that follow. A number of participants noted this section of the performance, and in more than just this sub-category. Based on such studies as Niedenthal, et al. (2005), I conjecture that its evocativeness lies in its emotional impact and the potential embodiment by participants of that emotion. In the past, I have heard people remark that a performance is visceral. I believe what they might have been suggesting is that the spectator had embodied whatever emotion was put before them. It

is unconscious, and seemingly unavoidable, as mirror neurons fire away, reconstructing in the brain what is visible on stage, and as in this case, people attempting to understand what the horror of war is like.

In summary, several sub-categories emerged from the primary categories. The continual fine-tuning of categories I did shows the progression from Rosenblatt's broad stances to more descriptive and complex categories. These sub-categories provide me with further insight into how participants created and expressed meaning from their transactions with the performances. Meaning was articulated in terms of the actors' abilities and how this affected participants, in how it connected to their prior experience and understanding, through a sense of authenticity and feeling transported, in how they related to the characters, and finally through an emotional response.

This set of data was collected 3-5 months post performance. The implication is that a museum theatre performance experience can be retained by spectators in detail for at least that amount of time. Longitudinal studies (Jackson & Rees Leahy, 2005; Allen, Allen & Dalrymple, 1999) that have looked at recall of performances support this finding. In the next section, I will address findings from the Focus Group Interview data. Much of this will be in comparison to the Follow-up Interview findings.

Focus Group Interview Categories

There were 141 data segments from the transcript of fourteen Focus Group

Interviews conducted immediately post-performance. Most of the people who were
interviewed in the Focus Group Interviews also agreed to be contacted for the Follow-up

Interviews. At least ten participated in both and provided similar data for each

instrument. Several participants used the same terminology to describe their responses in both interviews, so there are echoes of certain ideas or images between the two sets of data.

All primary categories I developed with the Follow-up Interview data were in evident in the Focus Group Interview segments as well, though not in the same percentages. To expedite communicating these findings, I will list the category, percentage, and one illustrative example from the data. In choosing examples from the data, I have attempted to avoid presenting too many from one site or one play or one interview, interspersing whenever feasible, to provide the widest view of the data possible. A number of segments in this set of data are comprised of two voices, either researcher and participant or two participants.

• Elements of Narrative (combined with subject of narrative): 59 comments (42%)

C –Did anything surprise you? Any of the stories they told, that surprised you? Which one?

Boy – The first one.

C – The first story surprised you? The story of the boy who lived in the area? What part of that story surprised you? What part of his story...

Boy – something about the roof coming down on somebody

(KHS cohort #39, Interview 4 on August 11, 2006)

• Play Quality: 43 comments (30%)

M – Right, but it was like, you were on the edge of your seat.

C – You were on the edge of your seat?

M – Yeah. I was. I was when I was watching it because she kept changing her voice, and that kept me interested.

(MOS cohort #105, Interview 11 September 30, 2006)

• Information Quality: 11 comments (8%)

W2 – inaudible...I thought I knew a lot about the Titanic.

C – I'm sorry. You thought you knew a lot.

W2 – Yes, I've read many books. I knew about the fourth stack being unreal, you know, but I just really enjoyed it.

C – so this held even more new information? W2 – yeah. (MOS cohort no#, Interview 9 September 29, 2006)

• Awareness of Self: 9 comments (6%)

W – Oh I remember the newspaper.

C – the day of the Challenger?

M - yes.

W – Cause I worked in school...inaudible

C - So, did the play make you think of that?

W - yes.

(MOS cohort #90, Interview 8a September 29, 2006)

• Play Message: 5 comments (4%)

And I guess too because our guys who are in the service now some of them aren't coming home you know, they're dying over there, so it just relates on a real gut emotional level and I think we've just forgotten about those military guys who are over there right now, so it really brought it home for me, so gosh there's families that are like that, that are just you know, there's kids that are 16, 17, 18 that are over there that are writing home, Kentuckians, and you know, that's how I connected (KHS cohort #57, Interview 5 August 12, 2006)

• Play Form: 4 comments (3%)

I think something like this would be very effective in high schools. It makes it real, come alive. (KHS cohort #14, Interview 2 August 5, 2006)

• General enjoyment: 2 comments (1%)

Oh it was great. It was cool, I liked it. (MOS cohort, no # Interview 14 October 1, 2006)

As in the Aesthetic/Efferent coding process, there is some overlap in these categories so that one segment might have the qualities of two categories, suggesting more of a spectrum than separate and distinct categories. For example, I coded this response as both Elements of Narrative and Play Message.

Maybe the whole idea of the military being like a brotherhood, that you're with these men, and you get to know them like brothers, there's a camaraderie or whatever they call themselves, the leathernecks, and you have one who's an Indian, and you're kind of thrown together with this group, one from Poland, who's got the Polish background, one's a doctor, one who's barely out of school and yet they're all fighting together, for...us, for a united cause...
(KHS cohort #57, Interview 5 August 12, 2006)

This participant has listed a number of elements of the narrative, but is also applying them to the more abstract thought of the military being like a brotherhood.

The common thread to this extensive set of data is its consistency with the data from the follow-up interviews. However, while consistent, there is variation, and in the next section, I will compare what participants said immediately post-performance with how they responded 3-5 months later.

Comparison of Focus Group and Follow-up Interviews

I was able to compare ten sets of responses from participants #4, 14, 15, 27, 35, 36, 40, 57, 90, and 105, who were part of seven interviews. The first five interviews took place at the Kentucky Historical Society and following two at the Museum of Science. There exists some literature on long-term memory of exhibits (Medved, 1998), and there are a few studies in theatre in education (Klein, 1995; Allen, Allen & Dalrymple, 1999; Jackson, 2002; Jackson, et al., 2002) that compare data collected immediately post-experience with data collected after more than a month. In their exploration of memory, Falk & Dierking (2000) cautioned that visitors to museums might provide a different answer to the question of what they learned at the two intervals, which is "an artifact of the constantly changing and evolving nature of memory and learning" (p. 31) rather than a failure at consistency on the visitors' part, or of effectiveness on the museums' part. On

the other hand, they referenced the study of museum impact by Medved & Oatley (2000), which found that there were no significant differences in participants' understanding from immediately after the visit and one month later. In a study of the impact of a theatre in education project, Allen, Allen & Dalrymple (1999) found seven months post-experience, students had a high level of detailed recall of the play and drama activities. In a comparative study on the effect of museum theatre, Jackson, Johnson, Leahy, and Walker (2002) found that after a two-month interval, students who had seen a museum theatre performance had better recall of the museum experience than the non-theatre group.

Here I have compared participants' responses immediately post-performance in focus group interviews and then three to five months later in follow-up interviews by telephone or email. Both interviews were semi-structured with open-ended questions. As a reminder, participants were asked very similar questions about how they responded to the performance they saw. Each of these participants who took part in a focus group interview and then in a follow-up interview was able to recall the performance. What follows is a comparison of how they expressed themselves in the two interviews. From pre-show survey data, I am able to provide a general description of each of these participants.

Participant #4 was a 34 year-old female. She was not a member, theatre-goer or tourist. She did not make a choice for her expectation of her museum visit, but did choose an aesthetic stance toward the performance. She clearly articulates in the focus group interview [FGI] that the play made abstract facts about history real for her. In the FGI,

she approaches more varied topics and is more specific in her responses than in the follow-up interview [FI]. The consistent focus is on the actor's abilities and on the "realness" of the experience.

Participants #14 and #15 were a married couple. The wife was a 70 year-old who declared herself a theatre-goer, choosing an efferent stance for both her museum visit and the performance. The husband was 72 years old who refused the binary choice for his expectations and chose both an efferent and an aesthetic stance toward the museum visit and the performance. In both interviews, he used the word "gripping" to describe the performance, and focused on the actor's "talent," rating his performance a 15 on scale of one to ten (in the FI and on his post-show survey). The wife initially focused on details of character, the actor, and elements of the narrative as she recalled the performance in the FI, but she consistently focused on emotional aspects of the performance in both interviews.

Participant #27 was a 76 year-old woman who declared herself a tourist. She picked an aesthetic stance toward both museum visit and performance, but added "Hoping to learn as well as enjoy" in a comment. She had surgery in between the two interviews, which she thought might alter her ability to remember. Nonetheless, she gave very similar responses in both interviews. In both, she listed elements of the narrative, such as the chickens and kitchen items and activities, as well as how it provoked her memory.

Participant #36 was a 79 year-old female who chose an aesthetic stance toward both museum visit and performance, providing as a reason the comment: "If it fits my

memories!". While she used the phrase "associate with it" in both interviews and told me the same story of when the miners union was being organized both times, there were differences between the two interviews. In the FI she provided less varied responses, but still described the three scenes of the performance and she talked about the actor more than in the FGI. Participant #35 was her 56 year-old daughter, who declared herself a tourist and chose an efferent stance toward both museum visit and performance. Her nostalgia for her family's mining past was evident in both interviews. She had a similar focus on the narrative element of the company store and how this affected mining families. She talked about the versatility of the actor in the FI, and not in the FGI.

Participant #40 was a 38 year-old male who chose an efferent stance toward both museum visit and performance. He attended the performance with his eight year-old son. He appeared to shift from a more aesthetic response in the FGI to a more efferent one in the FI. In the FGI he noted the tension of the union and the bravery that was required, which he questioned whether he was capable of, while in the FI refers to the performance as being well organized and educational.

Participant #57 was a 48 year-old female member of the museum who chose an efferent stance toward both museum visit and performance. She added the comment: "Enjoyment is equal to my desire to learn." Her responses were very similar in each interview. She uses the word "gut" reaction in both and has the same focus on comparing the subject of the play to war today. She also mentioned in both how the details of the characters brought out their humanity, her awareness of self as a mother, the humanizing effect of the play form, and the same elements of narrative. In the FGI she described the

feeling of being transported out of the reality of the museum and into that of the performance, which is not recalled in the FI.

Participant #90 was a 74 year-old female who declared herself a tourist and chose an efferent stance toward both museum visit and performance. There were variations between her interviews, though she mentions the radio operator, an element of the narrative, in both. Generally she provided more details in the FI than in the FGI. She talked about the actor, being impressed with the play form, the way it was presented and that it was both enjoyable and educational. In the FGI she expressed empathy toward those who made the decisions about the Titanic before it crashed.

Participant #105 was a 42 year-old woman who was a member of the Maryland Science Center and a tourist. She chose an aesthetic stance toward the museum visit and an efferent one toward the performance. She saw both plays at the Museum of Science, and her responses reference both. She provided a lot of details and spent a lot of time on the two interviews. The FGI with her and her family was the longest in the study. Her interview responses are very similar. In both, she uses similar language "fast and flip," "trendy" and "comical back and forth," and she mentions the screen (showing Franklin quotes and other visuals) used in one performance. She continued to express her distaste for the Franklin play from the FGI to the FI. She provides a similar level of detail, talking about the actor's abilities and various elements of the two narratives. In the FGI she uses the word emotional to describe the play about the Titanic, and in the FI she said, "she [the actor] could give you a feeling about it, better than being read a story." She described a play message for both shows in the FI, but not in the FGI. In both interviews, she

addressed how the style of each show affected her, but her responses to the Franklin play were more efferent, while her responses about the Titanic play were more aesthetic, e.g. "kept me on the edge of my seat".

In summary, my comparison of the two sets of interviews revealed little difference in feature, clarity or recall. I found a high level of consistency between the two sets. Participants generally remembered the performances in detail after an interval of 3-5 months, often using the same language to describe their experience. In several comparisons, the follow up interview allowed for more detailed responses. One possible explanation is the follow up interviews were conducted individually, allowing participants to express themselves without another voice diverting attention. These participants were being contacted by telephone at home or by email for the follow-up interview, rather than talking after the play, when they might have had a set plan for their museum visit and consequent time constraints.

Observations

Observations were recorded at each of the 22 performances used in this study. Visitor behavior observed included sitting or standing and waiting, talking quietly and loudly, shifting or wiggling in seats, smiling and laughter, silence, movement into and out of seats, shaking heads, avoiding eye contact, and asking questions. Performances at the KHS were attended by smaller crowds of visitors in general than the MOS, and there were fewer seats and the performance areas were smaller in the KHS. This lead to less attrition in KHS audiences and less movement in general. Each of the seven performances observed had at least some audience members who were showing

attentiveness by being quiet, looking at the performance while stationary (seated or standing), and responding with smiles or laughter at points in the show.

In chapter 2, I suggested that I would use observations to chart unconscious emotional reactions that may be revealed in audience behavior during performances. In the end, however, it was not possible to view such reactions from my point of observation, Because I was generally in the audience observing, I could not see others' faces easily. This remains an area of interest, and for future research, a video camera set from the performance area toward the audience, in those performances that are stationary, would enable data collection of such behavior.

There was far more movement in and out of performances than I could keep numbers on in the MOS audiences. The performance space allowed for lots of movement without interruption of the show because people can come and go freely from the top row of benches (level with the floor) and from the right side of the audience. I attempted to note when someone left or came in, but this became overwhelming during some shows. For example, on August 21, 2006 during *Frankly Franklin* at 2:30 I noted 4 out/2 out/5 out/5 in/2 out/1 in/3 out/1 in/2 out/5 out. This particular show appears to have lost more audience members than it gained, but my numbers are not necessarily accurate. I could not watch those who were staying and watching and count those moving simultaneously. Consequently, I do not want to present a misreading of attrition by calculating what I did write down.

I noted smiling, chuckling and laughter at each of the 17 performances across both sites. Sometimes I was able to note what it was that got a laugh, such as the marine's depiction of boot camp in *Look for my Picture*, or a fly falling into turnip chowder in *Frankly Franklin*. In the former show on August 21, 2006 at 4:30 I noted that children were laughing at the physical humor in the performance. There were occasional crying babies or children with behavioral disabilities that presented noise, but nothing ever interrupted a performance.

In summary, observations provide a view of the audience that coalesces with how they have presented themselves in the data, but does not add any new data. There was a variety of experiences, but for those who stayed, performances were received favorably. At the MOS, there is a challenge in dealing with a high attrition rate. Many people stayed for only a short amount of time, or came in late, not seeing the whole performance. This points to a limitation in the study, which is that I did not get post-show responses from anyone who left the performance, leading to the possibility that the data collected from those who did stay was skewed toward the positive.

Negative case analysis findings

There is data from this study that shows a lack of recall from performance to follow-up interview, negative overall responses, and a critical judgment of play quality, information quality, and play message. Negative findings constitute a small proportion of participant responses. I will detail these findings below.

In the post-show survey, 15% (26 participants) could not relate to the character(s), while 12% (20 participants) did not relate to the situation(s) presented in the play. 4% (6 participants) did not like the character and 2% (4 participants) did not like the situation.

11% (18 participants) did not find the character believable and 7% (12 participants) did

not believe the situation. Finally, 3% (5 participants) did not find the character informative and 4% (6 participants) did not find the situation informative.

The KHS cohort scored the performance no less than a 4 out of 6 in Question F of the post-show survey, while there was more variation in the MOS cohort where 18 participants scored their overall reaction at 3 out of 6.

Rather than code responses into established categories, I have scanned post-show survey results that express a low or unfavorable opinion in Questions E, H or I. Fourteen participants (all from the MOS cohort, but 9% of total) articulated criticism in the following comments:

- 1. Expected characters to be from 1700s +
 - i. Would have preferred actual time setting of 1700
- 2. Could have used more science facts and less drama/jokes bit overdone
- 3. Little long on flatulence, more silly than informative +
 - i. I learned something, but could have learned more
- 4. More entertaining than education
- 5. Negative
- 6. But then again my expectations were more for my nine year old daughter, who was required to stay despite the fact that she was bored!
- 7. A bit morbid
- 8. It was sad
- 9. Not as historically inclined as I expected
- 10. Better, except for one thing did not like hitting each other
- 11. Too theatrical over the top enthusiasm I found annoying depends on the audience appeals to a younger crowd
- 12. Need to give a little background before, the actors spoke a little to quickly
- 13. Too much acting, not enough science
- 14. Thought it might be more scientific (experiments) though I enjoyed all the history

These comments provide me with some insight into what about the performances participants did not find positive. The primary theme to emerge here is that these participants wanted less entertainment and more content or information. A successful balance of entertainment and education was not achieved in their view in the performance

to which they responded. The efferent stance that participants adopted toward the performance seems to have been a powerful influence on their experience. They came in expecting to learn, but were frustrated by the entertaining qualities of the performance.

In the focus group interviews, there were three occasions when the interview ended quickly because participants did not want to continue. In one, the woman expressed a neutral to negative response to the performance, as in the following exchange:

```
C – did anything stick out for you in the play?
```

W – Not really.

C - No.

W - The kids liked it.

C – The kids liked it?

W – Yeah. Well, the oldest one about the Titanic.

C – Oh, okay. Did you know anything about the Titanic?

W – Oh yeah.

C – Okay. Was any of the information new?

W - No.

(MOS cohort no#, Interview 13 October 1, 2006)

In follow-up interviews, nine participants (21%) either expressed difficulty recalling details of the performance they saw or recalled vaguely.

I'm sorry...I can't recall specific items/moments. (KHS cohort #31, email November 29, 2006)

I remember a little bit, but to be honest, not much. (MOS cohort #3p, email December 6, 2006)

One participant could not remember anything about it.

I want to think it was about, I can see that lady standing there talking just as plain as anything, I don't remember what it was about, was it about cotton? We saw so much that day, we had been everywhere (KHS cohort #26, December 10, 2006)

However, as wrote about in Chapter 2, having a negative response does not necessarily mean recall would be negatively affected. In fact, neutral responses would be the ones remembered less. This was borne out somewhat in the findings, because those participants with a negative response still recalled the performance in follow-up interviews.

From the segmented and coded follow-up interview data there are six negative comments about play quality and four negative comments about information quality. The issue of balance is evident in these responses. The following is a representative example:

Would have liked more emphasis on science and less on entertainment/trivia (MOS cohort #114, email January 3, 2007)

While negative case analysis of the data from this study shows that a percentage of participants did not respond favorably in some way to the museum performance experience, it did not support a denial of findings established previously. In fact, the inclusion of negative findings from some participants assists in deflecting criticism from such researchers as Malcolm-Davies (2008) who suggest that spectators' responses immediately post-performance provide only affirmative responses, painting an unrealistic hyper-positive picture of spectator response to museum theatre.

Analysis of Frankly Franklin

In an attempt to clarify whether any trends can be seen across the plays, I have separated the data from participants who saw *Frankly Franklin* at the Museum of Science. This play had a different quality and inspired more efferent response than the other plays. There are several places in the findings where I have noted possible

differences between data from different performances. I will approach this analysis from each instrument in order.

Eighty-six participants filled out the pre-performance survey before *Frankly Franklin*. The median age of participants in this sample was 36, which is younger than the aggregate sample, the mean of which was 40 years old. I compared the proportion of females to males who saw *Frankly Franklin* versus those who saw the four other shows and found no significant difference (see Table 4.13). There were slightly more females than males in both groups.

Table 4.13.

Comparison of male to female percentages from Frankly Franklin vs. 4 other plays

Total Frankly Franklin 4 other plays X², (d.f.)

 Total
 Frankly Franklin
 4 other plays
 X^2 , (d.f.)

 females
 54.7 (105)
 57.0 (49)
 52.8 (56)
 0.33, (1)

 males
 45.3 (87)
 43.0 (37)
 47.2 (50)

 n
 192
 86
 106

 * p<0.05</td>
 106

From the analysis in Table 4.14, there were no significant differences across performances in expectations.

	Total	Frankly Franklin	4 other shows	X ² , d.f.
Museum visit				
To learn	43.3 (78)	37.5 (33)	48.9 (45)	2.38, (1)
To enjoy	56.7 (102)	62.5 (55)	51.1 (47)	, ,
n	180	88	92	
Performance				
To learn	48.1 (89)	44.9 (35)	50.5 (54)	0.56(1)
To enjoy	51.9 (96)	55.1 (43)	49.5 (53)	
n	185	78	107	
<i>p</i> <0.05				

Table 4.14.

Comparison of expectations from Frankly Franklin data vs. 4 other plays in percentages

In the next table (4.15) I examined whether there were differences in the two groups responses regarding the four variables I created in the post-show survey Questions C and D regarding the characters (see Table 4.15) and situations (see Table 4.16) in the performances. What can be seen in these tables is that the *Frankly Franklin* sample and the 4 other plays group are significantly different from each other on all four variables regarding characters and only different from each other on believability for situations.

Response	Total	Frankly Franklin	4 other plays	X^2 d.f.
Relate to Characters				
Related to	77.6 (90)	71.4 (30)	81.1 (60)	1.43, (1)
Could not relate	22.4 (26)	28.6 (12)	18.9 (14)	
n	116	42	74	
Liked Characters				
Liked	95.8 (132)	91.1 (51)	98.9(81)	4.75*, (1)
Disliked	4.2 (6)	8.9 (5)	1.1(1)	, ,
n	138	56	82	
Characters Believable				
Found believable	86.5 (115)	68.2 (30)	95.5 (85)	18.78*, (1)
Not believable	13.5 (18)	31.8 (14)	4.5 (4)	•
n	133	44	89	
Characters Informative				
Found informative	96.5 (139)	92.3 (48)	98.9 (91)	4.32*, (1)
Not informative	3.5 (5)	7.7 (4)	1.1(1)	. ,
n	144	52	92	

^{*} p < 0.05

Table 4.15.

Comparison of Frankly Franklin to 4 other plays group in their responses to

Character(s) in Performance by Percentages

Total	Frankly Franklin	4 other plays	χ2, d.f.
			_
82.5 (94)	78.6 (33)	84.7 (61)	0.69, (1)
17.5 (20)	21.4 (9)	15.3 (11)	
114	42	72	
97.0 (131)	94.0 (47)	98.8 (84)	2.55, (1)
3.0 (4)	6.0(3)	1.2(1)	
135	50	85	
90.8 (119)	79.5 (35)	96.6 (84)	10.16*, (1)
9.2 (12)	20.5 (9)	3.4(3)	
131	44	87	
95.3 (122)	95.2 (40)	95.3 (82)	0.0008, (1)
4.7 (6)	4.8 (2)	4.7 (4)	
128	42	86	
	82.5 (94) 17.5 (20) 114 97.0 (131) 3.0 (4) 135 90.8 (119) 9.2 (12) 131 95.3 (122) 4.7 (6)	82.5 (94) 78.6 (33) 17.5 (20) 21.4 (9) 114 42 97.0 (131) 94.0 (47) 3.0 (4) 6.0 (3) 135 50 90.8 (119) 79.5 (35) 9.2 (12) 20.5 (9) 131 44 95.3 (122) 95.2 (40) 4.7 (6) 4.8 (2)	82.5 (94) 78.6 (33) 84.7 (61) 17.5 (20) 21.4 (9) 15.3 (11) 114 42 72 97.0 (131) 94.0 (47) 98.8 (84) 3.0 (4) 6.0 (3) 1.2 (1) 135 50 85 90.8 (119) 79.5 (35) 96.6 (84) 9.2 (12) 20.5 (9) 3.4 (3) 131 44 87 95.3 (122) 95.2 (40) 95.3 (82) 4.7 (6) 4.8 (2) 4.7 (4)

* p < 0.05

Table 4.16.

Comparison of Frankly Franklin to 4 other plays group in their responses to Situation(s) in Performance by Percentages

A look at the means for overall reaction, factual, and emotional content (see Table 4.17) for *Frankly Franklin* data in comparison to the 4 other shows' data reveals a significant difference in the means for overall reaction and emotion, but no difference for information. The low score for both overall reaction and emotion suggests that there might be a relationship between whether the performance was perceived as emotional and overall satisfaction, and furthermore, that whether there is a perception of factual content matters less to overall satisfaction.

	Means				
Measure	total	Frankly Franklin	4 other plays	t-test	
1. Overall reaction	5.19	4.48	4.84	-5.06*	
n^1	159	60	99		
2. Factual content	5.36	5.14	5.25	-1.97	
n^1	160	59	101		
3. Emotional content	5.01	4.25	5.43	-7.20*	
n^1	157	56	101		

^{*} *p*<0.05

Table 4.17.

Responses to performance overall, factual & emotional by means

In the next analysis (see Table 4.18), there were no significant differences found between the two groups regarding how many participants said they were surprised and how many felt their expectations were met.

	Percentage reporting yes				
Measure	Total	Frankly Franklin	4 other plays	χ2, d.f.	
Surprised	67.9 (108)	62.1 (36)	71.3 (72)	1.44, (1)	
Not surprised	32.1 (51)	37.9 (22)	28.7 (29)		
n^{-1}	159	58	101		
Expectations met	85.4 (123)	81.1 (43)	87.9 (80)	1.24, (1)	
Expectations not met	14.6 (21)	18.9 (10)	12.1 (11)		
n^{I}	144	53	91		

^{*} p<0.05

Table 4.18.

Responses to Questions of Surprise and Expectations Met in percentages

¹based on number of completed responses

¹based on number of completed responses

The comparison of Question E data (see Table 4.19) shows a significant difference in the percentages of efferent and aesthetic responses between the two groups. The sample that saw *Frankly Franklin* was more likely to contribute a high percentage of efferent responses and a low percentage of aesthetic responses than the sample that saw the four other plays.

	Total	Frankly Franklin	4 other plays	X ² , d.f.
efferent	86.9 (299)	92.3 (144)	82.4 (155)	7.29*, (1)
aesthetic	13.1 (45)	7.7 (12)	17.6 (33)	
n (comments)	344	156	188	
p<0.05				

Table 4.19.

Comparison of efferent/aesthetic coding of data from Question E in percentages

There were only two focus group interviews following *Frankly Franklin*, and one of these was inaudible on the videotape. Consequently, there are only 23 segments of data for comparison, and most is from one family of four. However, this was the longest interview of all focus groups and contains data from each member of the family: father, mother, two daughters (approx 14 and 12 years old). From this data there is a fairly even split between that coded as efferent and aesthetic (see Table 4.19). This was significantly different from the 4 other plays group, which had a higher proportion of aesthetic responses. Again, this comparison is somewhat out of proportion as all the *Frankly Franklin* comments come from one interview.

	total	Frankly Franklin	4 other shows	X ² , (d.f.)
efferent	39.6 (55)	47.8 (11)	37.9 (44)	4.81*, (2)
aesthetic	60.4 (84)	52. 2 (12)	62.1 (72)	
n (comments)	139	23	116	
p<0.05				

Table 4.20.

Comparison of efferent vs. aesthetic segments coded from Focus Group Interview data

Eleven of the follow up interviews were with participants who saw *Frankly Franklin*. Eight interviews were conducted by telephone and 3 by email. There were a total of 69 data segments from these interviews. Here we see the starkest difference (see Table 4.20) in the comparison of *Frankly Franklin* data with the 4 other plays. Comments about Frankly Franklin were more likely to efferent, whereas comments about the four other plays were more likely to be aesthetic. The proportions between efferent and aesthetic are almost in reverse of the 4 other plays group, with *Frankly Franklin* data showing more efferent than aesthetic.

	total	Frankly	4 (other plays	X^2 , d.f.
		Franklin			
efferent	35.7 (97)	59.4 (41)		27.6 (56)	22.74*, (1)
aesthetic	64.3 (175)	40.6 (28)		72.4 (147)	
n (comments)	2	272	69	203	
p<0.05					

Table 4.21.

Comparison of efferent vs. aesthetic segments coded from Follow Up Interview data in percentages

In finishing with analysis of comparing data from *Frankly Franklin* with the four other performances, I see that while the samples were similar and responses to characters and situations showed similar patterns, the trend toward more aesthetic responses from participants over time is not evident. Responses are tied more clearly to the performance experienced. Participants who saw *Frankly Franklin* expressed a different experience than those who attended the four other plays.

Summary of Findings

I began my analysis of the findings by analyzing the data in which participants' had indicated their stances. The results indicated that neither the museum visit nor the performance activated one stance more than the other. Participants were fairly split between adopting an efferent stance or an aesthetic one toward the performance.

My analysis of the data shows that the majority of participants related to the character(s) and found them believable, as well as informative and likeable. In terms of the situation(s) presented in the performances, the data shows that the highest percentage of participants liked them. Next they found them informative, followed closely by finding them believable situations, and lastly, they related to the situations. For the majority, the performance event was considered to be highly positive, had a balance of informational content with emotional content, and offered a pleasant surprise, which generally met or exceeded expectations. Details of the story and the characters were selected for attention by many participants, which was reflected in binary choices (liked/disliked, etc) and written comments.

In post-show surveys the majority of what was selected for attention from the performance I considered efferent, while in focus group interviews I determined more responses to be aesthetic than efferent. A similar balance of more aesthetic to less efferent responses was repeated with follow-up interview data. I thought I saw a pattern or shift. However, the analysis of *Frankly Franklin* data showed that the ratio of aesthetic to efferent was different in this play from the other four plays, so I cannot say that a pattern emerged from all performances. I speculate that one of the reasons for the higher percentage of efferent responses in the data from each instrument to *Frankly Franklin* may be the premise of the performance. Two characters arguing about Ben Franklin's achievements is less immediately emotional a narrative than the other MOS play about the sinking of the Titanic. Another reason comparison is difficult across instruments is that the survey, by which I found a majority of efferent response, must be considered more limited than interviews in terms of how much people are willing to write versus speak.

There were several aspects of the performance event that could be identified within the data that were selected for attention by participants. These parts spanned out from two major areas: story and assessment. Assessment codes encapsulate participants' responses that related to their opinion of the performance experience. The categories to emerge from here are: Play quality, Informational quality, Play form, General enjoyment, and Social Aspect. Story codes focused on features of the narrative and how the narrative related to participants. Story categories to emerge were: Subject of narrative, Elements of the narrative, Play message, and Awareness of self. All primary categories developed with the Follow-up Interview data were in evidence in the Focus Group Interview segments as well.

Several sub-categories emerged from the primary categories. These sub-categories provide further insight into how participants verbalized meaning in their responses to the performances. Meaning was articulated in terms of the actors' abilities and how this affected participants, in how it connected to their prior experience and understanding, through a sense of authenticity and transformation, in how they related to the characters, and finally through an emotional response.

A majority of participants remembered the performances in detail after an interval of 3-5 months, often using the same language they used immediately after the performance to describe their experience.

In the next and final chapter I will clarify how these findings answer the research questions and discuss what this might mean for the field of museum theatre. I will analyze the data again using the lens of transactional theory, as well as statistical analysis and comparative analysis, in order to delineate further how the findings contribute to understanding the nature of spectator response to museum theatre. In addition, I will make clear the various links I have attempted to draw to other disciplines.

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³ A note on the transcript: As interviewer, I am always marked with a C and those I am interviewing are marked with M for man, W for woman, M1 or M2 if more than one, and W1 and W2 if more than one. In Interview #11 with a family of four, they are represented by F for Father, M for Mother, OD for Older Daughter, YD for Younger Daughter.

CHAPTER 5

DISCUSSION

In this chapter, I review the study's findings, provide interpretation of the data and consequent conclusions, suggest implications and recommendations for future practice of museum theatre as well as research on museum theatre, provide analysis of the limitations of the study, and, in my conclusion, reflect upon the significance of the spectator to the effort we call theatre.

To review, the focus of this study is spectator response to pedagogic performances in museums. This genre of theatre is called museum theatre, and it is a hybrid of both art and education. Research in this field has been primarily evaluative, and focused on whether educational goals were achieved. Positive response has been documented from visitors who have seen such performances, but only a few studies have gone beyond this to understand the underlying nature of that response.

Based on this literature and the focus of my research, I developed the following questions for the current study. The language of these questions was shaped by transactional theory, developed by Louise Rosenblatt (1978) as a way to understand

reader response to text. It provided a theoretical lens through which to conceptualize the act of being a spectator to and making sense of a performance.

- What prior experience and understanding do spectators bring to the performance?
- Is there a predominance of efferent stance over aesthetic for spectators of museum theatre?
- What was selected for attention from the performance?
- How do spectators create meaning from the performance?
- In what ways, if any, does the observer become part of what is observed?

I used the following instruments to study spectator response:

- A pre-show survey to gauge participants' stance toward the museum and performance
- A post-show survey to capture participants' immediate responses to the performance
- Focus Group Interviews to get more in-depth responses to the performances
- Follow-up Interviews to explore extended responses and recall of performances
- Observations to detect visible audience behavior during performances

Transactional theory was used to begin shaping the analysis, which was then joined with statistical methods (Spatz & Johnston, 1989), Grounded Theory, and comparative analysis (Glaser & Strauss, 1967; Lincoln & Guba, 1985). From the collective findings, I have interpreted a polyphony of sound like improvised jazz. The

findings present many voices speaking to the nature of responding to museum theatre performance, like multiple melodies working together, but without a final, polished product as it is with the dynamic elements of performance. I am using this metaphor with its numerous instrumental tones and tempos to illustrate the equality and multiplicity of perspectives provided by participants, as well as the partial nature of the findings.

Participants have vocalized responses in harmony as well as dissonance. These experiences are positioned in time and space, and influenced by many factors, including the performance.

It is not possible to have one voice that carries the definitive true nature of response to museum theatre. Together, they contribute a gamut of experience that creates a situated truth in relation to a moment in time, the performance event. That truth is a possibility. It is possible for spectators to museum theatre to engage both aesthetically and efferently. The participants of this study did both in varying degrees of mutuality and exclusivity. What appears optimum is to have the performance activate both types of responses in the spectator simultaneously to create a beneficial symbiotic situation, wherein the two types of response support and strengthen each other. What becomes visible to me in the findings is the challenge in achieving this type of activation, and in terms of research, in capturing it. From the survey results, the more common response was predominantly efferent rather than aesthetic. However, from interviews, a fuller representation of aesthetic and efferent engagement emerged.

If there is a primary idea that was produced by this polyphony in terms of aesthetic response to museum theatre, it is the centrality of empathy. The human

dimension, the interaction between spectator and actor, is of central importance in engaging spectators to museum theatre. A performance provides a structure in which humans can focus their attention and create empathetic connections in their minds and bodies in order to make meaning.

I will now interpret the findings in detail by considering each research question.

1. What prior experience and understanding did spectators bring to the performance?

One of the most essential aspects of transactional theory is its concentration on the reader and the reader's experience as a valid source of interpretation for meaning (Rosenblatt, 1978). This study asked real spectators who saw performances at two museum sites to share their responses to this event, recognizing that their expression of that experience is valid and meaningful. It is a given in transactional theory that the reader brings their prior experience and understanding to the reading of the text. This prior experience will affect and shape on-going experiences such as watching a performance, a notion supported as well by experiential learning theory (Kolb, 1984).

The data showed that participants brought a variety of experiences and understandings to these performances. The sample of visitors who participated in this study represented a wide range of ages and this was evident in the variety of experiences they brought to their sense making of the performances. For instance, older participants who saw a play about the battle of Iwo Jima expressed strong beliefs and tightly held values concerning war. Their horizon of expectation was disparate from younger generations of participants, who have only just begun to live through a time of war. This

variety in the participants' horizons of expectations (Jauss, 1982) inspired a plethora of different interpretations of the performances. There was not one meaning, but many. There were different kinds of experience, as for some visitors a sense of nostalgia was evoked. Some participants who saw a play about coal mining brought their knowledge and experience of the lives of miners to bear on the meaning they made from the performance. These participants described a resonance between the performance and what they knew.

For some participants, the content of the performances was something new and for some, this came as a surprise. Young and old expressed such new understanding. An elderly gentleman was taken aback by the tough existence of coal miners, while a young girl commented on how surprised she was by how many mistakes Benjamin Franklin made in his scientific pursuits. A woman who professed to know all about the Titanic disaster expressed astonishment at learning new aspects about it from a performance. Participants' prior experience and understanding inspired the variation of interpretations.

Also evident from interview findings was a recognition and awareness of self from participants in each response that began with qualifications such as these from participants:

Well, I was a marine... I saw it as a mother... I lived then so... Well, I'm 77 so...

The category Awareness of Self, compiled from interview data through constant comparative method, contains examples of participants explaining their responses in

terms of who they are and how they were feeling. Substantiating Awareness of Self is the sub-category, It Connected to Me/My Experience, which grew out of the category, Elements of Narrative. In these responses participants expressed a direct connection to the subject of the performance via their own experience.

The following comparison highlights how highly personal and individual articulations of a performance's message can be. In a comparison of responses from two participants who saw the same performance clear differences emerge in how each shapes of the performance event.

Participant # 11 was an elderly gentleman and former marine who had served in WWII. After watching *Look for my Picture* about raising the flag at Iwo Jima, he talked about how he knew everything the character was going through. The performance provoked memories good and bad of his own experience, setting up a comparison between his and the character's. Meaning was weighed in light of this comparison, which caused some amusement for this spectator. Explaining his laughter during the performance, he said, "I was getting ready to say, you'll be sorry" (KHS cohort #11, Interview 1, Aug 5, 06). His identification with the character's story placed him inside this event as a sympathetic comrade.

In contrast, participant #4 was a young woman who had no experience in the military, but she spoke of her "gut reaction" to the performance, and how it made her cry to learn about the individuals who were part of an iconic image that she had known all her life. In this response, "...this was a real person, and to know him, to know something about the person in that picture that I've seen over and over again, it just blows my mind,

it really does, it makes me want to weep again, I mean it touches me" (KHS cohort #4, Interview #1, Aug 5, 06), we can see her previously abstract understanding of this moment in history evolving and becoming concrete. In the language of experiential learning theory (Kolb, 1984), this participant has built a conceptual bridge between her prior experience of this image and the current experience of this image. She has expanded her conception of the battle of Iwo Jima. This is evidence of learning. Additionally evidence of affect is notable in this response, which will be addressed more fully later in this chapter.

These two participants watched the same performance at the same time. They exemplify the variation of experience that can occur based on what someone brings of themselves and their horizon of expectations (Jauss, 1982) to the performance event. This variation embodies Rosenblatt's (1990) argument for the individual experience of the reading process as an event, "comprising a particular reader, a particular human being, and the particular pattern of verbal signs of the text," (p. 104), which translates in this study to a particular spectator, a particular human being, and a particular pattern of signs from a performance.

These two participants' experiences also suggest the interweaving of emotional and cognitive processing. We can see in both participants' comments an evaluation or appraisal (Fridja, 1986; Lazarus, 1991) that is part of an emotional response of this event. In the first participant's case, it is likely he evaluated a familiar experience and judged it as authentic, while also responding to the feelings brought back by that same experience. My conceptualization here may not be articulating fully this process of interweaving.

Cognitive and affective processing are not necessarily as separate as that, e.g. "Evaluation is the cognitive aspect of affect" (Fleckenstein, 1991, ¶ 13), which I liken to Rosenblatt's conceptualization of efferent and aesthetic reading as a continuum. Just as efferent and aesthetic represent parts of the whole possibility for a reading experience, cognition and affect are parts of the whole possibility for thinking. With the second question, this interconnectedness will be examined further.

2. Is there a predominance of efferent stance over aesthetic for spectators of museum theatre?

Transactional theory provided a model for how people select pieces of a text for attention and not others and a way to think about how spectators do the same with a performance. A reader's stance orients him or her in particular ways to the text, and a text can suggest an orientation via cues, such as the short lines of a poem. It is acknowledged that a reader's stance is not the only component orienting a reader to a text. Stance does not function in isolation. It works in concert with context and a reader's own abilities of perception.

A stance functions to center attention on select areas of consciousness (Rosenblatt, 2004). Briefly, through an efferent stance, the reader searches for information and through an aesthetic stance the reader notices the ways in which the information is displayed, though as Rosenblatt (1978) cautions, readers can do both. As I have suggested previously, in order to think of these stances as a continuum rather than

polar opposites, a color spectrum is an apt metaphor for Rosenblatt's stances, with efferent blues and aesthetic yellows, and many combinations causing shades of green.

At the beginning of the study, I speculated that a museum context would suggest a more efferent stance to participants than a performance might when placed in a theatre because museums present themselves as places of learning (American Association of Museums, 1992). Consequently, the related research question to this piece of the theory centered on whether there was a predominance of efferent stance over aesthetic for spectators of museum theatre.

The findings provided two ways to consider efferent and aesthetic stance, first as an expectation or orientation, and secondly, as an ensuing response. In the first sense, there appeared no dominant orientation toward the performance in the findings. The stances participants chose for their expectations for a museum theatre performance were equally apt to be efferent or aesthetic. The secondary question was whether this affected their experience and ensuing responses.

One of the primary tensions in the practice of museum theatre, as I stated, has been between the poles of education and art, and in parallel, between affect and cognition. As I have written, these concepts have been dichotomized, and only recently have efforts drawn affect and cognition together (Damasio, 1994; Nussbaum, 2001). Inspired and supported by the acceptance of these dichotomies, assumptions have existed that museum theatre performance is too affective – evoking only affective response, or too cognitive – evoking only cognitive response. Consequently, the idea of museum theatre could be dismissed by educators as not sufficiently educational, and by artists as

not sufficiently artistic. Transactional theory provided an analogous and complementary efferent-aesthetic continuum with which to consider this question of where on an affective-cognitive continuum response to museum theatre actually lies. I am linking the efferent action of taking information away from the performance with cognitive processing, and the aesthetic action of noticing sounds, the rhythm of words, images, feelings and ideas in a performance with affective processing. Admittedly not the only influence on a person's orientation and response, transactional theory's stances provided one way to think about it.

What seemed evident to me from the post-show survey findings was an initial predominance of efferent responses, focused on informational items and elements of narrative. It did not, however, follow that those who expressed an efferent stance expressed only efferent responses. Looked at individually, multiple items from one participant were often coded both aesthetic and efferent.

From the post-show survey results to those in the focus group interviews and then later in follow-up interviews, there appeared to be a shift toward more aesthetic responses. However, the play *Frankly Franklin* at the Museum of Science had a lot of efferent responses to it. After taking the data from this play out of the aggregate and comparing it to the data from the other four plays, the apparent shift from more efferent to more aesthetic responses was not there.

Therefore, while each performance evoked a variation of efferent and aesthetic responses, the ratio of efferent to aesthetic was closely related to the individual performance[co19]. Plays that had more emotional content to them, such as *Look for my*

Picture, had a higher proportion of aesthetic responses, while plays that had less emotional content, such as *Frankly Franklin*, had a higher proportion of efferent responses.

Within a set of responses or one response, participants alternated between efferent and aesthetic stances as they articulated meaning from their performance experience. This movement across the continuum suggests spectator responses comprised a mix of "the cognitive, the referential, the factual, the analytic, the abstract...and the affective, the emotive, the sensuous," the full spectrum of possible reader responses envisioned by Rosenblatt (1993, p. 383). This spectrum can be illustrated within a single participant's response. In a series of ideas, this participant articulates aspects of the cognitive, factual, analytic, abstract, as well as the affective and emotive.

"I didn't know they put up the smaller flag up, and then they put up the bigger flag so everybody could see it, I had no idea, so that was another fact, it was information, but it also about inspiring and why they were there and what that flag meant" (Interview # 1, Aug 5, 2006).

There were other areas in the data that also conveyed a similar breadth within responses. First, in the data from post-show survey Question G, participants judged the performances to contain high levels of information and emotions. Second, both cognitive and affective engagement were evident in Question C data, but in different groups. In this question, participants were asked whether they related to the character(s) in the performance or not, liked them, believed them, or found them informative or not. Initially, the finding that the MOS cohort found characters less believable than informative was confusing. Upon reflection, I sense that this finding points to an imbalance of cognitive and affective processing in this group. They believed the

information the play provided, but the characters did not seem real to them. This connects to the findings of Paiva and colleagues (2005) that found characters needed to connect empathetically in order to be believable. In these participants' responses, I am interpreting less affective processing which did not enable empathy concerning the characters.

On the other side, the KHS cohort registered belief in the characters nearly unanimously. They believed what they were hearing and seeing, in terms of information, characters and situations. Together these elements rang true for them. The KHS sample marked a higher level of emotion to the performances they saw than the MOS sample. Furthermore, there was difference in the levels of relating to the characters, which connects to empathy, an imaginative leap into another's shoes. While in both groups at least half indicated that they related to the characters, an additional 13% of participants did in the KHS cohort.

This suggests the KHS cohort exhibited a stronger sense of empathy than did the MOS cohort. [CO20] One possibility is that the KHS plays were able to evoke more empathy because the topics related to moments in history (the Depression, war, coal mines) that are emotionally evocative, though the content of MOS play about the Titanic was very similar. The play about Ben Franklin was not emotionally evocative. Another possibility is the actor's performance, which was commented on by so many in the KHS sample and less by the MOS sample. These given categories provided an opportunity for participants to give insight into specifics about the characters and situations presented in

the performances to which they responded, which they may or may not have been able to articulate independently.

3. What was selected for attention from the performance?

In this section, through constant comparative analysis of participants' qualitative responses to performances, I found many different recurring types of responses. I attempted to simplify thinking as to the varying paths that were selected for attention by finding commonalities between them, forming two major themes: story and assessment. Story encapsulated all of the response categories that refer to the whole or pieces of the story and participants' responses to it. The categories under Story are: Subject or Elements of Story, Play Message, and Awareness of Self. Assessment represents all of the response categories that included a judgment or opinion about the style and content of the performance. The categories under Assessment are: Play Quality, Information Quality, Play Form, General Enjoyment, and Social Aspect. Both themes illustrate that participants selected for attention a broad range of items or moments from the performance that are comprised of different blends of efferent and aesthetic elements.

For many participants their focus was not static, so that what they selected for attention might include several aspects of the performance. I characterized the majority of the responses from Follow-up interviews as aesthetic. These responses were not all about the same elements, but they were all about a sense, a feeling, a quality of experience. In these, participants gave in-depth, elaborated descriptions, such as how the actor's emotions impacted their emotions. They remembered the narrative of the story they saw,

many describing a small detail, like the character writing home to his mother. The quality of the information, and not just the information itself, was highlighted. How they were affected, what happened internally inside them, was what came to the surface when I asked what they remembered from their experience 3-5 months before.

Looked at individually over time, I interpreted the categories within these themes to be specifically what participants noticed initially and what stayed with them. Play qualities include the actor's work, the script or story, the production values such as lights, set, sound, and costumes, and sometimes multi-media effects. These aesthetic components were noted by many participants, and from a comparison of post-performance to later follow-up interviews, there was a slight increase in these comments. This finding suggested that as time goes on the qualities of the performance might take prominence.

Another category with a high percentage of responses was Elements of Narrative about the subject or elements of the story, or content of the performances. Generally, these represent more efferent responses. Immediately after the performance these were noted more than any other category, but there was a decrease in the follow-up interviews leading me to speculate that these fragments of items, while remaining common for people to mention, became less prominent as an organizing force (Jackson, et al. 2002) in participants' minds.

Responses in the category Play Form show participants' awareness and appreciation of the theatrical frame, which Kershaw (1999) advanced as good practice for

theatre in heritage sites. These comments reveal a sophisticated audience, who go so far as to compare theatre to other mediums, as in the following response:

"He did a lot with a little, relatively simple but put the message across very well, appealed to the imagination, what film and television don't do, radio used to do this, just bare necessities, it's very effective, we don't have to have everything realistic." (KHS cohort #55 December 13, 2006)

This response also invokes Iser's (1995) gaps or blanks in a text, which allow for the creativity of the reader to fill in. In this participant's comment, there is an appreciation for the gaps inherent in a museum theatre performance.

In summary, there was a wide breadth in the variety of participants' responses for what was selected for attention. They focused on the particular pieces of information that were the content of the performances, while also noting the qualities of the performances. They engaged with the ideas within the performances, as well as the idea of performance itself (Bundy, 2003). The theatrical frame around the performances was registered by many participants, the recall of which was maintained over time. This awareness presents a critical aspect of museum theatre to understand. Spectators have the ability to conceptualize the play form and have a meta-awareness of its affect on them[co21]. This is the ability to see double and blend concepts that McConachie (2007) proposed are unconscious, neuronal-based capacities in spectators. This ability is counter to criticism that spectators have difficulty separating the fiction of a performance – i.e. is this really a marine from World War Two? – from their own reality.

4. How do spectators create meaning from the performances?

The meanings participants articulated in the data showed in what ways they comprehended and understood the performances. As I wrote in Chapter 1, meaning making is no longer considered a simple act of acquiring facts. It is about building significance (Ebitz, 2007) and is more personal and active. Meaning is not fixed. The open-endedness of this study allowed for a variety of meanings to come to light and showed what parts of the performances participants found relevant, rather than just whether they got the message.

With such a wide definition of meaning it is difficult to say that anyone did not create any meaning, but participants' experiences were not unanimously meaningful. There were levels of meaningfulness in participant responses. In the post-performance surveys, there were participants who provided only isolated facts for what they most remembered, but this may also have been a limitation of the survey instrument as well as a limitation of the meaning they constructed from the performances. Participants who took part in focus group interviews and follow-up interviews provided many of the most fully articulated senses of meaning. These were participants who compared their own experience and understanding with that presented in the performances, such as the participant who compared his life as a farmer to that of a coal miner.

In particular, meaning was sought in response to a feeling of realness or authenticity, which often included an emotional aspect. Such responses suggest participants' affective processing informing their cognitive processing. This fluidity between affective and cognitive responses and the "lack of neat dividing-lines between

the categories reflected the difficulty of pinning down and defining any response that operates at affective, as well as cognitive, levels" (p. 309) was observed by Jackson & Rees Leahy (2005). Fluidity is another way to conceptualize the intermingling and interdependence of cognitive and affective responses.

What was it about the qualities of the performances that were meaningful? Several features could be discerned, most notably the actors' abilities. The sub-category within Play Quality, Actor, served as a conduit to meaning for a number of participants. It was evident that through the actors' commitment and talent the spectator could accept and believe in the reality presented in the performance. This is an area where spectator response verges away from transactional theory, as no such mediator exists in the reader-text relationship. In Black & Goldowsky (1999) believability was a factor in student responses to a play when they responded positively that a sense of realism was evoked through conflict between the characters.

Another sub-category within Play Quality was Authentic. In these comments participants articulated perceptions that the performance was authentic in some way and that authenticity was important to this experience. Authenticity was most often related to historical accuracy, though also in terms of the actor's portrayal. In the literature concerning living history and heritage sites, the concept of authenticity has become increasingly contentious (Hart, 2007; Magelsson, 2002). In his critique of authenticity in living history museums, Magelsson (2007) argues that authenticity and accuracy are socially constructed and a visitor's notion of authenticity is based more on a site's reputation than any other ontological criteria. Considering and rejecting such a

postmodern perspective on authenticity in reenactments, Hart (2007) concludes that "a reenactment digests the power of the original Civil War event by approximating it, and then conveying something of this power to the audience by way of representation" (p. 121). In other words, a sense of authenticity assists in learning. In this study, a bit of both points of view can be seen. One participant assumed the performance to be historically accurate simply, "Because it was in a museum." (MOS cohort, #112, January 15, 2007). Another participant alluded to the power of the play's representation, "I thought they were an interesting way to learn about a soldiers [sic] perspective in a war situation, very honest without trying to make the situation look like something it wasn't. (KHS cohort #21, email December 11, 2006)

In the third and final sub-category within Play Quality, which I labeled Transported, participants expressed the feeling that the performance was "real". These comments centered on the notion of either being transported by the performance or experiencing a shift in reality. Transformative experiences are the objective of theatre—to get the audience to, in Coleridge's phrase, "suspend their disbelief" so that one reality can be put aside temporarily in favor of the performance reality. This willing suspension of disbelief is a key marker of an aesthetic experience (Rosenblatt, 1978). I also address the category Transported further in answering the next question.

Moreover in terms of transactional theory, Rosenblatt built into her conception of the reading process a secondary response to what is being evoked, so that the reader participates by having initial responses during the reading, which become part of what is reflected upon later in the secondary response. In this category of response I see this two-

part process in how participants reflect on their response of feeling transported by the performance.

These sub-categories of Play Quality that I have just detailed are inter-dependent on one another. If the actor's talents are not convincing, the performance will not feel authentic. If the feeling of authenticity is lacking, the phenomenon of transportation would not happen. The feeling of being transported lends to the authenticity of that moment. All of these sub-categories existed within the category of Play Quality. To review the various categories, please reference Table 4.13. Therefore, a fully engaged aesthetic experience of museum theatre consists of a feeling of authenticity conveyed by the performer(s) leading to a sense of being transported in time and space.

Now I will address sub- categories that emerged primarily from Elements of Narrative. I have already described how the sub- category "It connected to me/my experience" contributes to thinking about participants' prior experience and understanding. In terms of meaning, this sub-group brings to light the filter by which people make meaning – through themselves in response to the performance experience. This connects directly to transactional theory's proposition that an aesthetic experience is one to which the reader brings themselves. This sub-category of comments show the spectator as active and drawing upon past experiences to find meaning, which Iser (1978) agreed was located not within the text, but in "...what had been previously sealed within us" (p. 157). Therefore, what can be seen in these comments are participants making meaning through themselves.

Another sub-category that stemmed primarily from the Elements of Narrative category was Related to Character. These comments focused in on particular details of the characters in the performances and how learning the details of the characters brought out their "humanity". Learning of their personalities, the characters became more real, and in reader response language are realized by participants. Thus, meaning is formed by participants realizing the characters. This set of responses supports the empathetic identification that Franco (1994) found in her study of visitors who interacted with characters from the past.

Considering empathy further, there was evidence of participants imagining "as if" they were the character, identifying with the characters' situation, or perceiving how another is feeling (Levenson & Ruef, 1992), hallmarks of empathy. In his exploration of empathy, Zillmann (1994) contended that human beings want to hear the stories of others. This desire was clearly embedded in these and other responses. However, I was unable to observe the motor mimicry type of empathy described by Zillmann (1994), which I had hypothesized I would. The problem could have been in my abilities as observer. It may have been that participants exhibited motor mimicry, but I found it difficult to observe participants and note more than the broadest of physical reactions. Consequently, motor mimicry may have happened and I missed it.

The last sub-group I will clarify is Affective, which was culled from various categories. There were 12 comments, all but one from the KHS cohort. This group of comments expressed an emotional response or recognized the presence of an affective quality in the performance. These follow-up responses support and elucidate the finding

from the post-show survey, where participants rated the level of emotions/feelings high at 5.2 out of 6 and believed, liked and related to the characters and situations of the performances. In many comments, these participants were "moved" by the performance, e.g. "I know that when they raised the flag there on the island that was quite moving" (KHS cohort #14, December 11, 2007).

I struggled at one point during data collection to decide whether to continue using the play *Frankly Franklin* in the study because in my own judgment it did not provoke particularly emotional response. I wrote methodological notes in my field journal, "Should I judge the emotionality of the plays I work with? Should I change to another play that is more emotional?" and then in a technical note I asked, "Could I use FF as a comparatively unemotional play – juxtaposed with more emotional plays @ KHS?" (August 20, 2006). I decided that it would be more methodologically sound to maintain my original plan and see what the results were. I wanted to withhold my personal judgments. This led to a separate analysis of *Frankly Franklin*, which I will address after attending to the questions.

The follow-up responses echo reactions in the focus group interview in words like "gripping," "gut reaction," and "emotional feelings." In fact, as I detailed in the findings, affective responses like this were articulated by participants in each of the focus group interviews with the KHS cohort. For instance, in Interview #4, the young boy was struck by the story of the mine caving in. He did not say it was emotional, but this story, with the danger of death inherent, was what he found interesting. Furthermore, his father, while addressing the historical perspective of unions then and now, brought up the

tension caused by the union organizer in the play and the bravery he would have needed to speak out. In the same interview, another participant told the story of a national guardsman being abused by anti-union thugs. While not specified as such by participants, the nature of this discussion was emotional, and as such supports the presence of affective processing.

Affective learning has been a primary focus of mine from the beginning of this study. I wanted to understand how emotion informed people's experience of museum theatre, if at all. The neuroscience and psychological studies (Damasio, 1994; Reisberg & Heuer, 2004; see McGaugh, 2003) [co22]I reviewed strongly suggest that people remember an emotional experience better than a neutral one. What I see in participants' responses in this small group of comments, in the level of emotions/feelings recognized in the performance, and in participants' belief of the characters and situations of the performance is that affect is a part of their museum theatre experience, though this was not the case for all. Additional probing questions might bring to light a fuller, more cohesive sense of that level of emotion/feelings perceived in the performances in the post-show survey. There are different methodologies for detecting emotion. A more experimental approach measuring heartbeat rate and sweat would detect emotional arousal.

Regardless of the lack of articulation specifically using words connoting affect, emotions or feelings, the movement between efferent and aesthetic responses represents for me the constant interplay between the cognitive and affective domains of thinking.

The data suggests that participants' responses show affective and cognitive processing

working in tandem (Damasio, 1994). As an example of affective response, below is one participant expressing his belief in the story through the actor's abilities:

What stuck out for you? First, the young man portraying Saufley did a fantastic job. Five minutes into the story – you actually believe it was Saufley. He had the capability of taking you along this very emotional enactment. (KHS cohort no# email November 30, 2006)

Participants constructed meaning through the actors' abilities and their effect on participants, in how it connected to their prior experience and understanding and filtered through themselves, through a sense of authenticity and transformation, in how they related to the characters, and finally through affective response. Empathy allowed spectators into the virtual scenarios of the performances to explore the perspective of another. What the sub-categories point to is a recognition of a feeling of realness, which suggests belief in the realness of the performances as an important part of the spectator experience of museum theatre. Furthermore, since reproducing a sense of realness is the objective of producers of museum theatre⁴, it follows that both producers and spectators of museum theatre have the same objective – to make it real. The idea that a performance in a museum can be interpreted as making an idea or exhibition real is echoed in the report, *Seeing it for Real* (Jackson, Johnson, Leahy, and Walker, 2002). The authors noted the theme of realness, of feeling that a performance created a sense of reality, was common in children's responses.

The meanings participants expressed in comments show the various ways in which they comprehended and understood the performances. The open-endedness of this

⁴ Two creators of museum theatre performances used in this study were also interviewed.

study allowed for a variety of meanings to come to light and showed what parts of the performances participants focused on, rather than just whether they got the message. Previously, learning has been measured almost solely by whether spectators got the message (Baum & Hughes, 2002; Hein, Lagarde & Price, 1989; Black & Goldowsky, 1999). In this study, learning can be seen more broadly as part of life-long learning, as in Experiential Learning Theory (Kolb, 1984). This kind of learning happens in and out of classrooms, at any age and at any level.

As an example of such learning, one participant described how, because of seeing the play *Look for my Picture* at the KHS, he paid attention to the news of the death of the photographer who took the famous Iwo Jima photo. This participant wrote in his follow-up interview email: "I felt closer to the situation and read the articles about his life because of viewing the performance" (email December 11, 2006). The experience of seeing the performance changed how he then approached the experience of reading about the passing of Joe Rosenthal, the photographer. Leinhardt & Crowley (2002) provide another way to think about learning in the museum context by examining the speech of visitors' conversations. Participants in this study engaged in conversation with the researcher and many times with each other to explore their responses. Often the language they used described expanded conceptions of the subject of the performances, as in the following responses.

In the first example, in Focus Group Interview #6 the participant states his surprise at the content of the performance, "I didn't know any of that. I've been a farmer all my life... I didn't realize coal miners had it all that bad, but I guess they did." Later in

the interview he focused on how much coal miners made, "The way he got treated, about how, making 80 cents a day... It was more like slavery, wasn't it?" and made reference to a country song that related to part of the performance, "Yeah, about the *owe my soul to the company store*, that's about the way it was. ...Like the old boy says, *Owe my soul to the company store*" (italics added). During the interview he also talked about having driven through coal mining towns and having a good friend who had been a coal miner. These points of reference provide us with insight into how this participant's notion of a coal miner's life expanded from the performance experience. He had known something of a miner's life from these prior experiences, but obviously not many details, which were provided in the performance experience.

In the next example, in Focus Group Interview #9 three participants discussed the elements that went into the sinking of the Titanic, acknowledging their prior understanding first: (Man) "The thing is we knew about the Titanic and all that kind of thing ...inaudible... and you learn something". One of the women was struck by the role of the radio operator in the sinking of the Titanic, which she did not know about previously. Later in the follow-up interview, this participant reiterated not having previously known about the radio operator's actions, which led to calamitous miscommunication. This focus group's discussion, and in particular the participant who took part in the follow-up interview, showed how their understanding of the Titanic disaster evolved based on their performance experience.

In summary, it appears that both producers (actors, writers, etc.) and spectators of museum theatre have the desire to realize the reality of the performance. If realized, some

participants talked about and recognized what and how actors spoke and moved to make the experience more real, and how light/sound effects were used to make it more real, and all of the details of the narrative, like details about the characters, that helped them believe in, relate to and realize the story. If realized, some participants described moments of transcendence, and recognized the dual realities: within the performance, and outside watching the performance. One participant went so far as to describe the moment of watching the actor move from one reality to another, which leads into discussion of the final research question.

5. In what ways, if any, did the observer become part of what is observed?

A transaction leaves in its wake change. Rosenblatt (1978) insisted that transactional theory center on this premise for readers and text. In terms of this study, the question focused on how the spectator to a museum theatre performance might be changed as a result of this experience. I have just detailed how participants' understanding of subjects in the performances changed and expanded, but how did the spectator become part of the performance? In the act of realization, the performance itself lives, not as a set of indecipherable behaviors without a context, but as understood signs that together contain meaning for participants. A dialogue is created between performance and spectator. At times when participants could believe in and relate to the performance, they were transported into the performance.

This type of engagement is the mission of theatre, or as Kosidowski (2003) articulates theatre's mission, the intention is "to bridge the fissure between observer and

observed" (p. 83). For participants in this study, this transcendence could have occurred as the actor put them into the role of Italian immigrants newly arrived at a coal mining town in Kentucky, or when they envisioned the final moments of activity on the deck of the Titanic, or experienced the flare of the flash bulb on the marines raising the flag at Iwo Jima. In those moments, what some participants described was the observer becoming part of what was observed. They no longer stood outside of the experience looking on, at times even forgetting where they were, such as this participant:

"You're right in the moment with him, you don't even realize you're in the History Center I'm just like... everything around me is gone and I'm just like, right with him. (KHS cohort #57, Interview 5 August 12, 2006)

The data suggests that by responding profoundly aesthetically and living through the situations presented in performances, some participants became part of the performances. In these moments, they diminished the divide between spectator and performance. I also speculate that these participants were aesthetically engaged (Bundy, 2003) as they exhibited hallmarks of such engagement in their awareness of living through parts of some of the performances.

I have linked Turner's (1982) notion of liminality to some spectators' sense of feeling and being transported in time and space during a performance. This I think gets closer to what occurs for spectators to a performance than transactional theory's notion of the observer becoming part of what is observed. But there are several other theoretical points of view that I believe also connect here. Theatre theorist Augusto Boal proposed a similar transformative phenomenon in metaxis. It is the idea that through a "transitive identification" (Boal, 1995, p. 44) with the actor, a spectator's sympathy will allow

metaxis to occur within themselves. This is a state produced by imaginary movement between the fiction of the drama and the social reality of the spectator. For Boal, being in the fiction of the drama allows for practice that in turn may modify the social reality of the spectator (Boal, 1995). By living through moments in the performance via empathic connection, the influence is felt in the spectator's future life.

I join these theoretical connections together with the cognitive advances of mirror neurons (Rizzolatti, 2005), simulation theory (Gordon, 1998) and embodied emotions (Niedenthal et al., 2005). Actors on a stage telling stories of human beings provides the opportunity for others, as they watch, to re-create the actions of what they see, and even just hear described, in their brain activity, to simulate or empathize and develop the emotions of the actor within themselves. This is how they are making sense, and how meaning is constructed. So much of this is unconscious that it is very difficult in a study such as this one to dig deeply enough into participants' responses to get at it, and it requires a lot from participants to be able to articulate such responses clearly. A more experimental study might be more successful in detecting these phenomena.

One of the strengths of this study was in the variation of instruments I used, which allowed participants to construct and clarify their responses in varying ways and at different intervals. Participants in this study were typically able to recall details of the performances they saw three to five months later. They often used the same language they had initially used immediately post-performance to describe their responses, and shared similar stories that had been evoked by the performance. A consistency in the data emerged that painted a detailed picture of the museum theatre event as a site of activation

for participants' affective and cognitive processing, which led to strong recall, comprehension and learning.

Surprise

The spectator response of surprise seems a crucial part of the museum theatre experience. A majority of participants in this study acknowledged being surprised by the performance. The theatrical form itself surprised people (e.g. "Totally unexpected way of relaying the story," MOS cohort #133) and for many a play in a museum did not instill high aesthetic expectations (e.g. "Didn't expect much but it was very good," KHS cohort #12), so that when a performance was found to be of high quality, it generated surprise (e.g. "Surprisingly good," MOS cohort #130). As shown in the codes and comments above, there were those who did not expect to learn something new and were surprised to do so, (e.g. "More stuff I didn't know before, I came just for kids really," MOS cohort no #) while there were those who sought a science demonstration or history lecture and were disappointed (e.g. "Thought it might be more scientific (experiments) though I enjoyed all the history," MOS cohort #119).

Surprise as characterized here by participants suggests a relationship to affective and cognitive processing and consequently, learning. Surprise is itself an emotional state, caused by cognitive appraisal processes (Reisenzein, Meyer & Schützwohl, 1996).

Surprise interrupts information processing and can lead to a reappraisal, possibly a revision of the expected schema. In this study, some participants' schema for what they might experience in a museum changed, as well as what they might learn from a performance. For some it was the content that surprised them and in doing so, caused

them to reappraise that content, such as the participant who was surprised to find that miners were paid so little.

Jackson, Johnson, Leahy, & Walker (2002), in examining school group's expectations about their museum visit, found the element of surprise in children's reactions to idea of performances in museums, and at the differences between the time of the play and contemporary time. The following quote from this report specifies some of what constitutes their surprise, which is very similar to responses in this study.

The theatre group expressed surprise at the actress's presence ('I were going to have an actress speaking to us, and when she said, 'come down here', I thought, I didn't know if she was talking to us, and I thought 'who is this person?' but I didn't know') and at the setting ('No, I thought, I thought we'd just sit and, in like a room, and there wouldn't be a house'), and at their enjoyment ('I didn't actually know that it was going to be as good as that'). (Jackson, et al., 2002, p. 62)

One implication of the surprise registered by participants in this study is that future study of the surprise response to museum theatre in isolation might provide us with insight into to how it works as part of affective-cognitive processing and learning.

What happened with Frankly Franklin?

In conceiving and writing the script for *Frankly Franklin*, the playwright

Margaret Ann Brady attempted to balance the educational goal articulated by Museum of

Science educators to have everyone leave the performance knowing more about

Franklin's accomplishments and his significance as a scientist, with her intention to get

the audience to empathize with, or imagine themselves in a similar situation as the two sibling characters and their attempt to exemplify Franklin.⁵ One specific part of Franklin's work that the museum educators wished highlighted was the kite experiment, which has been mythologized. Therefore, part of the play would require re-explaining the kite experiment and principles of electrical force. This is a daunting task by any means, and she struggled with how to lift the performance beyond a didactic presentation.

Artistically, she tried to use humor to make Franklin's story accessible, to make him more accessible and fully rounded as a person. She did her own research with primary and secondary sources, and worked with experts in physics and weather, with whom she vetted particularly difficult scientific ideas.

Brady brainstormed various dramatic scenarios, choosing to use two sibling characters, both whom attempted to illustrate aspects of Benjamin Franklin's way of engaging in science to figure out a problem. They attempt a game of one-up-manship in the process of the play. She wrote bits of physical humor into the script, and used different media, such as a video animation about the kite experiment with a Monty Python style humor about it.

In her own criticism of the production, Brady said that while she attempted to get the audience to feel empathy for the two characters, she did not feel it succeeded. "It ends up to be just them telling about what he did" (personal interview, September 29, 2006). She mentioned several areas of stagecraft she felt were not done as well as they could

 5 I conducted interviews with Margaret Ann Brady over the course of September 29 and 30, 2006.

have been. She felt scenic elements did not succeed in suggesting where and when the performance took place.

Brady's struggle to balance the educational and artistic is clearly a challenge. This was the only play of the five in this study that had the particular challenge of explaining a scientific principle. While the play about the Titanic included many scientific concepts, none was a principle. In conceptualizing the balance required of museum theatre, the image of two weights, one educational, one artistic, seems apt. The heavier one gets, the more that is needed on the other side. In this instance, the educational outweighed or overwhelmed the artistic.

What was missing? Participants in this study did not seem to care about the two characters in the play. They failed to engage them, which can be seen in the lower percentages of relating to and believing in the characters. The play did not fail to engage entirely. There were many efferent responses to it noting elements of the narrative. There was recall of it in follow up interviews. Participants still rated it fairly highly overall, and rated the level of information as high. What is telling is that they rated the level of emotion/feelings significantly lower. This suggests an imbalance of information and emotion. Negative comments focused primarily on the humor. These participants did not appear to find the humor appropriate. Comments that expressed a need for more education and less entertainment suggest that spectators to *Frankly Franklin* may also have been looking for a different medium, such as a demonstration, rather than a play.

In my estimation, a crucial element missing was an induction for the audience. At no time in this play did the actor's situate the audience into a role of any sort. I believe

this left spectators confused about who they were as they watched this performance. Were they in present day or the past? They might be able to accept a theatrical premise if they knew the rules of the game. Induction, in the sense I mean to convey, can be subtle, as in the constant reminder by the narrator of *Unsinkable? Unthinkable!* that the spectators are humans, and therefore she is not, or it can be more overt, as it was in *Into the Veins* when the shop keeper spoke in Italian to the spectators as new immigrants to Kentucky.

What *Frankly Franklin* shows is the significance of the aesthetic in museum theatre. Without success as art, museum theatre struggles for impact.

Why did participants remember?

Participants visited a museum in the late summer and early fall of 2006. Three to five months later, in November through to January, they were asked about a performance they saw that day on their visit. It can be assumed they did many other things during their visit to the museum, some of which was expressed in interviews. In the ensuing time, world events and personal business kept happening: Hurricane Katrina took place, the Iraqi war continued, children's engagements were announced, and surgical procedures were endured. Then these participants were asked to recall details of a twenty-minute performance, which most were able to do, some easily and some working it out as they talked. What they remembered and chose to talk about suggests to me that they remembered because they were engaged by the particular qualities, structures and properties of the performances. In particular, they were engaged by the actor, a sense of realness, and a trust in the authenticity of the event. They remarked again and again about

how the performance seemed so real. This participant's comments represent this notion very well:

"Not like reading a book. He didn't just stand there and talk. It really put us in the scene. He really wanted to tell us, and completely involved us. We were delighted to see it." (emailed, KHS cohort)

Beyond Reading and Transactional Theory

There is a sense that lurks behind all of the various ways I have attempted to look at spectator response to museum theatre that still begs the question of how significant an impact a performance can have on its audience. It is a question of whether this work matters in the end and it is a thorny question indeed. Transactional theory provided me with a way to begin looking at the nature of response while withholding judgment. Whether a reading was efferent or aesthetic was not a measure of merit, though Rosenblatt (1978) did insist that in order to realize a work of art, an aesthetic reading is necessary. But in the case of museum theatre, the goals of taking away information and living through the experience are melded. And what I have interpreted from the data is that response to museum theatre appears to be different variations of both. I came to question if a work of art in museum theatre is ultimately in the middle of Rosenblatt's continuum.

Exploring this question, I generated a different model synthesized from the findings, which extended from Rosenblatt's continuum (see Figure 5.1). I placed the two ends of the continuum on two axes, which cross to create four quadrants. Each quadrant represents a mix of both efferent and aesthetic response, allowing for all responses to be some measure of both. At no point is any response considered purely one or the other.

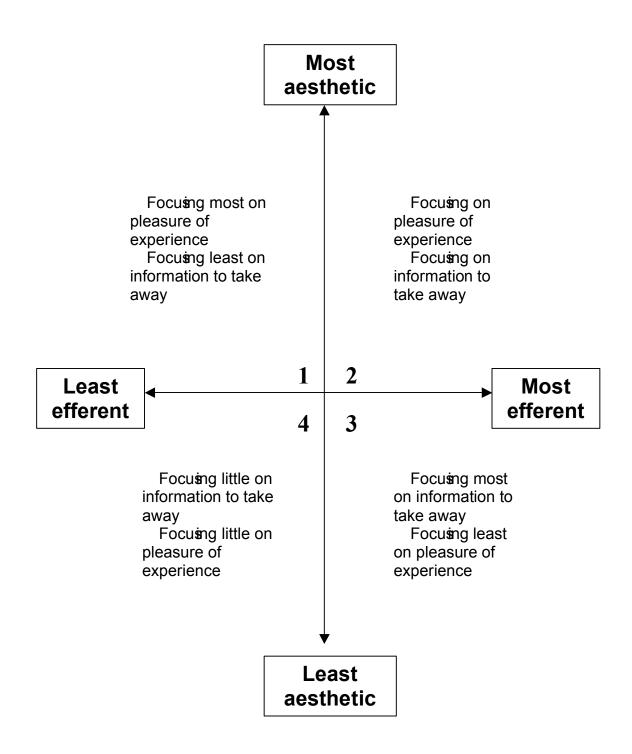


Figure 5.1

Diagram of Efferent-Aesthetic Axes

However, quadrants two and four provide obvious comparisons for level of impact and potential for judgment. Quadrant two shows the most impact in that both aesthetic and efferent response are present and equal; Quadrant four shows the least in that there is little of either response present. I offer this diagram as another way to think about spectator response that may be more applicable for museum theatre than Rosenblatt's continuum.

There are other additional ways in which spectator response seen in the data could not be captured through the lens of transactional theory. Participants in this study responded to more than just text – some were aroused, provoked, stimulated or stirred by the gestures, movement, sound, and action, as well as language, of a performance. This was most clearly evident in responses to the actor, a presence that does not exist in reading a text. The actor embodies the text and exists in flesh and blood to be contemplated by the spectator. The actor's facial expression, voice and body posture all contribute to the performance event and provide a foci for simulation (Gordon, 1998) or empathy. The participant who cried during *Look for my Picture*, the participant who spoke of envisioning the last moments of the lost souls on the Titanic, and the participant who compared his own sense of bravery with that of a mining union organizer each spoke to the impact of the actor's presence.

To realize the world of a book or the world of a performance are both acts of human imagination. Watching the action of a performance, however, is a sensual experience that can require listening, smelling, seeing, and occasionally feeling in a

tactile sense. To have the possibility of touch, as when the actor in the play about mining touched the shoulder of a young participant, is a distinct part of museum theatre.

Other theories fill in where transactional theory leaves off. I suggest that the participant who cried in response embodied emotion from the performance, much in the way that Niedenthal and colleagues (2005) have described it. The participant who spoke of envisioning the last moments of those on the Titanic had her mirror neurons firing away as if she was on the Titanic watching the behavior of fellow doomed passengers. The participant who compared himself to the mining union organizer simulated (Gordon, 1998) what it must have been like to attempt to speak out against the powerful mine owners.

These participants were able to blend the concept of the actor and the character into the actor/character (Fauconnier & Turner, 2002), to see double as it were, and through empathetic connection, to feel as if. This is ultimately what theatre is trying to do: to expand spectators horizons of expectation, to add to their knowledge, to provide an opportunity to live outside themselves for a moment. Whether this experience does what Boal (1995) is interested in and changes future behavior is not clear from this study, but perhaps that is a next step.

For Future Research

A study such as this can often provoke more questions than it answers. Though the findings are not definitive, they do suggest areas of research that might prove fruitful. One area that I was unable to follow the thread of strongly is change in the individual spectator. To stay with one participant, creating a series of case studies, and explore

possible changes or growth from before, during and after a performance, seems to me an exciting prospect. Such research might be able to further articulate special qualities of a museum performance that might promote deep meaning to be evoked in the transactional space between performance and spectator.

More needs to be done to more fully understand the interplay between cognition and affect in museum theatre. Rosenblatt's stances provided a successful starting point to consider how a spectator might be taking in and processing the experience of a performance, but it is now necessary to move on from the efferent-aesthetic spectrum. I have only just begun to contemplate how the diagram of four quadrants of response I created might illuminate this interplay.

An extension of looking at the spectrum is investigating what assists in creating aesthetic experiences for visitors to museums. Penny Bundy (2003) explored the notion of aesthetic engagement in her study of drama practice. The three keys to aesthetic engagement that she identified are: connection, animation, and heightened awareness. Using these three keys as a theoretical framework, I believe would help in analyzing this work. It would be very helpful to discover whether and in what ways these might be used as a criteria of engagement. She also helpfully explored aesthetic engagement as another way of knowing, as one in which cognition and affect intermingle.

Connected to this, but also something that can be studied separately, is empathy. This study showed many instances of empathetic response and connections to other disciplines' work on empathy. I believe this is just the tip of the iceberg in terms of understanding empathy in spectator response and connecting to other domains of

knowledge. Attention is now focusing on empathy's function on people's responses in disparate fields such as art (Freedberg & Gallese, 2007), and computer-generated learning games (Paiva, et al. 2005). Modern neuroscience keeps giving us more to think about, and others are looking back to philosophers such as Adam Smith, John Locke and Charles Darwin and their views on empathy.

Detecting emotional response might be best achieved in a laboratory setting. New ways to detect emotional response continue to emerge from neuroscience and cognitive psychology. The question really hinges on how spectator response researchers might collaborate with scientists to experiment with theatre.

Additionally, it is clear that the social aspect of watching a performance affects that experience, and study of how that public experience shapes learning would be a worthy contribution to the field.

The challenge for museum theatre continues to be finding the balance between art and education. A study examining response to one experimental production with changing elements would help immensely in understanding how individual variables affect response.

Finally, I have ignored for the most part the interaction between performance and exhibition that is a major purpose of museum theatre. This was not the focus of my study and I did not have the time or resources to include a comparison study of exhibition with and without performance. More studies examining how these two communicative methods work together, support or detract each other, would contribute well to our understanding.

Trustworthiness

The notion of validity appropriate in a quantitative study must be translated in a qualitative study into one of trustworthiness (Lincoln & Guba, 1985). One technique that has been established to strengthen a study design and lead to more credibly trustworthy findings in qualitative research is triangulation, the use of several different methods or data. In this study, triangulation meant gathering data through different sources of information in interviews, surveys and observations, and blending and integrating that data to increase trustworthiness in the portrayal of the performance phenomenon and participants' response to it. Providing the perspectives of the participants, the performance creators, and the researcher provides a more holistic and contextualized (Lincoln & Guba, 1985) understanding of the performance event.

Persistent observation (Lincoln & Guba, 1985) of performances and visitor behavior allowed the researcher "to identify those characteristics and elements of the situation that are most relevant to the issue being pursued and focus on them in detail" (p. 304), and provided data for comparison. Observation was a necessary component to triangulation.

To address trustworthiness and interrater reliability (Stemler, 2004), another graduate student researcher was asked to code 344 items segmented from the Question E data, and 144 segments of data from the Focus Group Interviews with the established categories of Aesthetic and Efferent. Aleksandr Kvasov, a doctoral candidate in the School of Teaching and Learning at The Ohio State University, served as the independent reviewer for this part of the study. He was given the list of items and a description of the

categories and was asked to code the items. A hard copy of the segments from Question E was given to Mr. Kvasov, who coded and returned it. The segments from the focus group interviews were sent as an emailed document, coded and returned by email.

In order to assess for inter-rater agreement kappa testing was done. For question E data, the kappa number (0.7569) indicated a very high level of agreement, which can also be seen by a percent agreement of 95%. However, for focus group interview data, agreement was lower, with the kappa number (0.2138) and percent agreement of 69.78%.

Statistical analysis was conducted to determine possible relationships between sites and responses, and between different groups and responses (Spatz & Johnston, 1989). I was assisted in the statistical analysis of inter-rater agreement by Dr. Jennifer Cornman, Adjunct Assistant Professor at the University of Medicine and Dentistry of New Jersey-School of Public Health. She ran various statistics for the project and guided me in understanding their meaning.

Limitations of the study

Though at first it appeared to accentuate an oversimplification of the data, in the end, use of the efferent-aesthetic continuum proved to be a successful model to begin conceptualizing a frame for analyzing the data from this study. Focusing on the various hues of color that are created in any response within this continuum helped to realize the many different possible combinations of efferent-aesthetic response, and to start brainstorming alternatives to the continuum. The fact that it is a continuum, rather than a dichtomy, also supported the same notion as it applies to affect-cognition and arteducation.

One of the most critical limitations of the study is a lack of control for consistent numbers of participants across instruments, and variability in terms of what participants contributed via various instruments. The limited sample size did not allow for incomplete surveys or interviews to go unused. Pre-show surveys for which no demographic information was provided were not used, but many surveys, pre- or post-show, lacked completely filled responses. However, it was different participants who chose not to fill in assorted responses. The *n* for each group is noted so that the number of participants who contributed to each question is clear. Some focus group interviews were brief and unfinished, but still contained a piece of data that contributed to the data set. This variation in numbers limits the study and occasionally causes a lack of clarity regarding significance.

While no research instrument is perfect, there are several weaknesses to the ones used in this study that should be noted. The pre-performance survey did not allow for variations in people's responses. It forced a binary choice, which I had done purposefully, but in retrospect realize lacked subtlety. Likert-scale(s) of "to enjoy" and "to learn" could have offered more choice and may be given more information regarding expectations.

With the post-performance survey, I attempted to create a survey instrument that was easy to fill out, allowed for some open-ended response, and was visually varied. In doing so, I utilized a variety of measures (multi-choice, likert-scale, etc). Again, I did so purposefully to avoid boredom in the respondent, but a more consistent survey instrument might have eased analysis and added power to the findings. Furthermore, in attempting to look at all aspects of response to performance in the survey, I may have diluted the focus.

However, this broad focus was also a necessary preliminary step to understanding the variables

Missing from the study was whether participants had prior experience with museum theatre, which may have helped in understanding responses.

For focus group interviews, I had great difficulty getting the MOS sample to volunteer immediately after the shows, which caused in imbalance between sample sizes. It is unrealistic to ask many museum visitors to sit for an impromptu interview in large facilities like the Museum of Science, with so many other events happening each hour. Smaller sites like the Kentucky Historical Society present less of a challenge because there are fewer distractions. It is perhaps necessary in larger museums to cue visitors beforehand in order to gain their participation. It may also allow participants to articulate their thoughts more easily, knowing they will be asked. To cue visitors obviously affects the data and must be considered differently than non-cued interviews, but better this than no interview at all.

In both email and telephone follow-up interviews, participants had a difficult time trying to articulate why they thought they remembered. More thought needs to be given for how to get this kind of information from spectators, as it would be informative to know. It also complicated matters to ask if they remembered what they wrote in recalling the performance immediately post-performance, rather than just asking what they recalled at that moment.

From this experience I have gained the knowledge that only one aspect of audience behavior is really workable for one observer. My attempt to look at a number of

aspects during each performance led to a general reduction in what I collected. I could only get bits and pieces of various aspects. One way to observe might be to look at only one aspect per performance, such as attrition numbers. Only Video camera recording would assist in certain kinds of observation, such as watching audience facial reactions.

In the pre-show survey, forcing participants to declare a stance did not show me whether they changed their stance during the performance experience. Another way to do this may have been to ask an open-ended question before the show regarding their expectations and then compare these directly afterward.

Conclusions

Participants had varying responses in this study. They ranged from a limited response of taking a bit of information away, like Ben Franklin did a lot of things, to a deeply aesthetic transformative experience in which the participant was moved and awed by the performance of a World War II marine's story. They might both be considered meaningful in some sense, but certainly one appears to have a larger impact than the other and is the aim of those who produce this type of theatre. The question that has plagued me through the process of this dissertation and before is what created the difference between these two experiences? Is it the performance, and if so, what about the performance? Is it the actor, the script, or the director's intentions? Or is it in the spectator? And if so, what about the spectator? Is it about who they are, their interests, where they have been, and what they care about? What I have come to realize in this study is that all of this matters. It matters what the performance is about and how it is performed, and it matters who is watching and where they have come from. It also

matters where the play is performed, and whether it's raining outside, and if there's a war on. All of these variables interact to create the quality of the experience, whether to lessen or expand the impact. As one participant confessed: *I must admit that I was a bit tired when I sat down for the performance and so was not as attentive as I should have been. I don't think I am a very good representation of the quality of the performance that was given that day* (email, December 6, 2006).

Whether you find the Titanic an endlessly fascinating subject or could not care less will affect your experience of seeing a play about the Titanic, but it will not determine it. That is because the performance may surprise you. If you thought you knew everything about this subject, you may be surprised to learn more, as happened with some of the participants in this study. Or you may be surprised to find the subject interesting at all, or in a new light, as another participant in this study did. Likewise, the performance may not bring about any surprise about the Titanic, but the fact that one actor can play many parts well in a single performance did surprise, which was yet another participant's experience. This last participant also articulated another influence. She attended the performance not because of her interest, but because of her son's interest in the Titanic. She had not chosen be a spectator, but had acquiesced. This reason for attending a performance was expressed by thirteen participants at the Museum of Science. They were there for the children, or the grandchildren. Participants shared many reasons for their attendance, including sitting to rest.

There were also those who did not intend to stop and watch a performance, but in the end, were compelled by the performance itself. At the Kentucky Historical Society, one participant refused the invitation to sit and watch, instead continuing to read labels in an adjacent exhibit. Once the performance began, however, this gentleman began to watch from afar. And continued to watch and step closer, to the point when, after the first scene finished, he followed the rest of the audience as they moved to the next performance area. His assumption had been: *I never thought it'd be factual at first, but after I listened for a while that's actually the way it was. I thought it was just kind of play* (August 26, 2006). Another unintentional spectator from the Kentucky Historical Society recalled being drawn into the performance: *I just remember we were walking around and just came upon it, it was so dynamic, so much more impressive than we thought it was going to be* (December 11, 2006).

So some participants were engaged, and some were not. Many reasons go into this complex and interactive experience, many completely individual and beyond the control of those who aspire to create experiences to which people can engage aesthetically and cognitively. While the purpose of this study was to try to understand spectator response, underlying that was a wish to narrow down the variables, to uncover what might be most important and controllable to creating a performance that would make engagement much more likely.

At the same time, it is important to realize what cannot be controlled. Spectators cannot be controlled. They bring myriad experiences to any new experience, which then shape the new experience, producing meaning that is utterly individual while possibly shared. Context cannot be controlled entirely. Whether it's raining on a summer vacation day in August, causing hordes of visitors to descend on a museum, which means that

lines to the food and bathroom are overwhelming, causing claustrophobia and irritability in some of the visiting public, adding new elements to the loud, boisterous crowd of spectators sitting, waiting and hoping that the show, whatever it is, will be fun and educational, is out of the performance creator's hands.

Nevertheless, the unique format of museum theatre seems to complement the museum experience of visitors; it is clear museum theatre has the possibility of adding emotional meaning to the quiet artifacts in glass cases and in dioramas, of adding to the experience of learning, and of providing theatre professionals with the interesting challenge of creating a didactic performance (Barbacci, 2004) colored by the aesthetic.

My transition from museum theatre performer and director to researcher has been a challenge. Keeping my prior experience to the side and not allowing it to bleed into every part of the study, and being aware of when it did, has been the biggest hurdle. Researching in a site where I once worked (Museum of Science, Boston) necessarily created ethical and political tensions, and presented struggles with closeness and closure, but I also believe as Marshall & Rossman (2006) do, that this proximity assisted my ability to build trusting relations with the performance creators, and increased the quality of the research by providing easy and full access. My job was certainly facilitated by many people who helped provide me with support and assistance, and my appreciation for their efforts is immense.

But collecting the data, while challenging, as most researchers come to realize, is merely the tip of the iceberg. Synthesizing all the bits and pieces, the polyphony of

voices, was an enormous test for me. This study has caused a lot of soul searching about what it was I was attempting to say from the findings and what threads I wanted to connect together. In the end, I finally found the spine of the study and that was empathy in all its various forms and shapes. It was the ability to take on a role and know what another person feels, it was feeling what another person feels, or it was caring sympathetically about and responding to what another person feels (Vreeke & van der Mark, 1993) that impacted spectators' construction of meaning. Regardless of the cognitive expectation inherent in any museum theatre event, it was the ability to feel something in response to it that was fundamental to many of this study's participants.

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 $^{^{6}}$ Two creators of museum theatre performances used in this study were also interviewed.

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APPENDIX A

THE SETTINGS

THE SETTINGS

Kentucky Historical Society

The Thomas D. Clark Center for Kentucky History is located downtown in the state capitol, Frankfort, a small city (pop. 2005: 27,077) in the middle of the state. The surrounding area is rural. The Center, operated by the Kentucky Historical Society, is a gleaming new glass and brick 167,000-square-foot facility built in 1999 housing a museum and library. The museum's permanent exhibition, *A Kentucky Journey*, is a chronological walk through time with life-size environments, state-of-the art technology and fourteen interactive displays. There is also a temporary exhibition space next to the permanent exhibition. Theatre performances used in this study took place in areas of the permanent exhibition and in a temporary exhibition on flags.

The theatre program manager and the main actor in the performances, Greg Hardison, served as my contact at the Center. He extended introductions for me to the education staff, who were supportive and helpful as I spent time in the exhibition galleries talking with visitors.

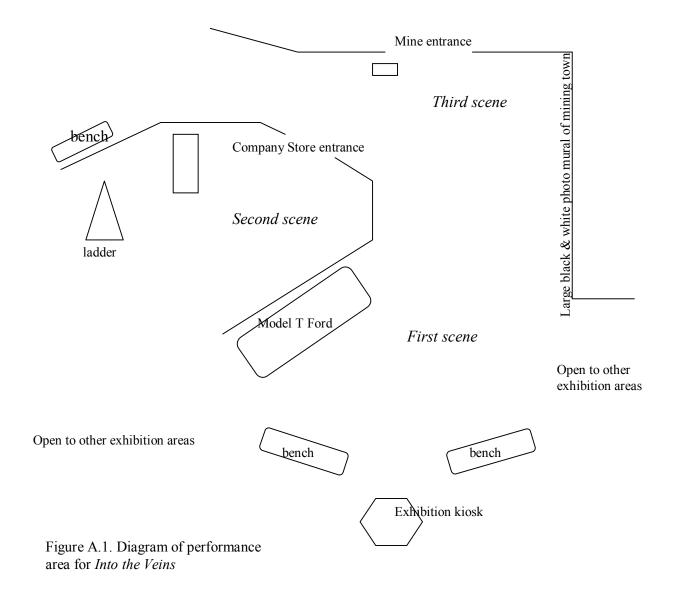
The first performance I viewed and collected data before and after was *Into the Veins: Conversations from a Coal Town*. This is a three-character/three-scene scripted play, written by Greg Hardison, performed by one actor in approximately twenty minutes. The genesis of the play was to create a performance that would work in the coal mining exhibit. Later, educational goals about immigration and social change in

Kentucky were retrofitted (personal interview, Greg Hardinson, August 11, 2006). It began in an open area on the edge of the coal-mining exhibit. There were two benches moved to face, at angles, a Model T Ford to the left and a large mural photograph on the wall to the right. The grainy black and white photograph is of a coal-mining town from the 1930s. The benches served to focus spectators on the open area. (see Figure 1 diagram) Before each show, staff of the Center announced to all visitors in the entire exhibition that a museum theatre piece was about to begin and showed them where to sit. There was no sign, no other indication that a performance would take place. Some visitors sat on the floor and waited. The staff person would then stand before the audience and make an introduction, "You're about to see a museum theatre performance called *In the Veins....*" (see Appendix 2 for Introduction guides).

Because there is no stage for this performance, the lines are blurred between performer and audience. At some points during this show, the actor was within touching distance of the audience. It was very intimate. Eye contact was made with most members of the audience. Some visitors did stand back and watch from the back of the audience area, but most were close and maintained visual contact with the actor throughout the performance.

At the start of the performance, the actor ran into the open area from the back of the coal exhibition while yelling back to his mother and stopped short upon seeing people waiting. He wore blue-jean overalls and had two metal buckets for collecting water. The character he played is that of a young boy living in the coal town of the photograph who has been sent by his mother to fetch water. He assumed the people he sees waiting have

also been sent for water. He talked to them about his family, the mines and life in the town. Some of these stories conveyed the difficulty and danger of coal mining from a child's perspective. At one point, he walked on imaginary railroad tracks. He ended by



explaining that he'd better go for the water before he gets into more trouble and ran to the left of the audience yelling a line, *I'm going, I'm going, I'm gone*.

At this point, a staff person led audience members forward and around a left corner of the exhibit into an area simulating a mining company store. Visitors filed into the store and stood facing an open area in front of a counter with a cash register on it. There was a ladder standing in the middle of the store. From behind the open area the actor entered, now walking with a limp while he tied the strings of a white apron, in character as an Italian immigrant who runs the store. He saw the visitors assembled and began talking in Italian, gesticulating and asking questions. After a minute, he switched to an accented English and said, "Ok, you no speak English, we'll talk in Italian," thus setting up the fiction that the visitors were now new Italian immigrants. He introduced himself and had advice for how to assimilate into the Kentucky mining culture. He brought up how he had been injured, which led him to work in the store. In this scene, the actor interacted even more directly with the audience. At one point, he reached out and patted a person on the shoulder. When I attended, this person was usually an older child or young teenager. Toward the end of his monologue, the actor dismissed the "immigrants" with a warning not to listen to the union organizer who was around.

The staff person then led visitors back outside the store, which has a simulated mine opening across an open space from it. There was a wooden box to the left side of the opening. Without much of a hesitation, the actor then entered from the left. The white apron was gone, and the actor had a jacket and hat signifying the 1930s. Now in character as a union organizer, he stepped onto the wooden box and began a rousing speech, assuming those before him to be miners and miners' families. He ended this emotional

plea with a union song "Which Side Are You On?", which he sang acapella, beating out the rhythm with his boot on the box.

Visitors applauded after the song. The union organizer thanked them and left.

This created a false ending, which was quickly evident when the actor re-appeared in the audience as the first character, the young boy. He joked with visitors about what they were doing hanging out in that area, and asked whether they will go to the picture show like his brother, who he imitated. He then hustled off hurriedly to get more water with a signature line, *I'm going*, *I'm going*, *I'm gone*. That was the end.

The three distinct scenes together take about twenty minutes to perform. The actor changed his voice, manner, physicality, and bits of clothing to signify who he was at each point. These changes were distinct to avoid confusion for the spectator. At no point did any participant express confusion over who he was during the show, though several described the dawning of their understanding of how he was going to play different roles. The staff person was also available to answer any questions visitors might have had.

The second play used for data collection was called *Look for My Picture: Raising the Flag with Franklin Sousley*. This was a one-person twenty-minute play about raising the flag on Iwo Jima during World War Two. The performance took place in a temporary exhibition on flags. The exhibition hall had a wide entry with a central wall that created a left and right corridor, with free standing exhibit components throughout. A cut out of the blown up image of the iconic photo of soldiers raising the flag on the beach of Iwo Jima was placed against the left wall of the exhibition. (see Figure 2) The figure of the central soldier's body, turned slight away while holding the flag pole, was raised in relief on the

front of the image. This is the figure of Franklin Sousley, the character of the play. Below the image, at Sousley's feet, stood a wooden box with two steps. During performances, chairs were placed in an open area facing the image in two rows. Visitors sat in the seats, stood in the back or sat on a bench that was placed against a wall behind the row of seats.

Again, staff made announcements that a play was going to begin and invited individual visitors from other areas of the Center to watch. The actor waited behind an exhibition wall until visitors were seated. The staff person would alert him that people were ready, and make an introduction to the performance, similar to the one made for *In the Veins*. A recorded rendition of "The Halls of Montezuma" played softly and

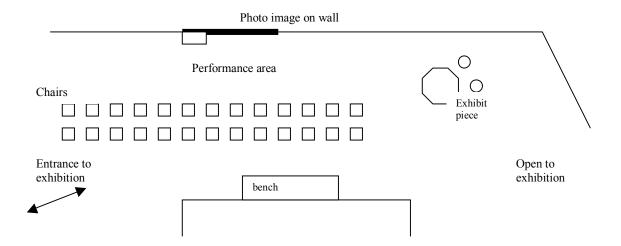


Figure A.2. Diagram of performance area for *Look for my Picture*

continued until the actor spoke. In the quiet that followed the staff's introduction, the actor in character as Franklin Sousley, wearing the full gear of a marine circa World War Two, entered from behind the audience and stood staring at the image for 30-60 seconds. He then moved in closer to look at the image and began talking to the audience as he turned to face them. His monologue then went on to address Sousley's biographical story of going to boot camp, being shipped to the Pacific to fight, landing on Iwo Jima, and raising the flag. Through the story, the character refers back to his home life, writing back to his mother, and recounting his last dance with a girlfriend before shipping out. He shares the stories of the other men who, with him, raised the flag. The monologue goes in and out of time and place, existing in an undeclared present that would make Sousley a ghost and then moving from the present moment back to being part of the landing at Iwo Jima to dancing with the girlfriend. There were sound effects at varying times, and at one point, the actor climbs the stairs of the wooden box and stands in the same pose as Sousley in the image. A flash of light simulates the photo being taken in that moment. At the end of the performance, the actor stands again silently looking at the image, then exits through audience. This is the end of the play.

The third play used for data collection was called *Diary of a Depression: A Day with Mary Ruth Dawson*. Written by a playwright who worked from diaries in the Kentucky Historical Society's collection, this play focused on life at a family farm during the great Depression. Again, this play was introduced by a museum staff person. The audience was collected and seated in an area with several benches in a row. (See Figure 3) I used this play for data collection only once. In the show I saw, several children sat on

the floor. The audience sat with a wall on their right facing an open area with an old washer to the side and telephone pole with a power line attached at the top. On the other side of the open area on the left was a chicken coop. Across from the chicken coop was an open kitchen at the back of a house. The actress sat on a chair up against this kitchen for some of the play. To begin the performance, she entered from the area of the chicken coop, pretending to feed the chickens, spreading out seed and calling, Here chick, chick, here chick, chick. When in front of the audience, the actress saw someone over their heads, behind them. She called to this person, her new neighbor, across a field, welcoming her to the area. In a gradual transition, eventually the actress directly addressed the audience as if they were that neighbor. In the guise of introducing herself to the new neighbor (the audience), the actress told the story of her family and farm during that time of the Depression. She also did chores as she spoke, such as folding laundry. This is a quiet performance in that there are no special effects of lights or sound, as there were in Look for my Picture, and the audience does not move, as they did in Into the Veins. The actress evokes another time through her stories, accent, costume of a depression-era farm wife, and her chores.

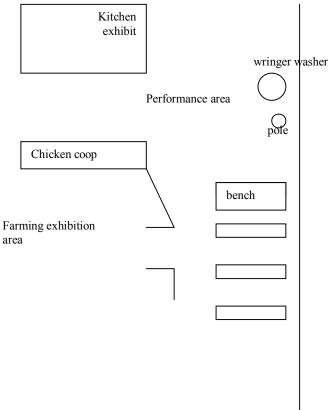


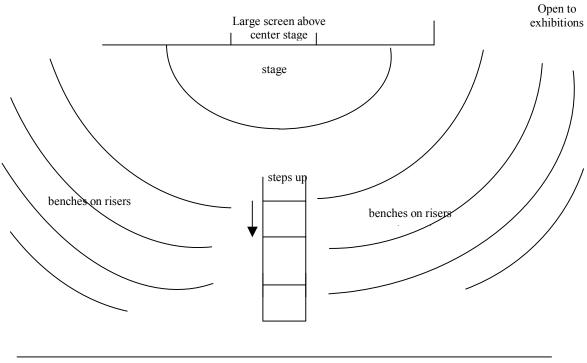
Figure A.3. Diagram for performance area for *Diary of the Depression*

Museum of Science, Boston

Both performances at the Museum of Science, Boston were performed on the same stage, which was called the Science Live Stage. Each play had different set pieces and use of media, but the configuration of stage and audience area remained constant. (See Figure 4) There is a large screen above the stage that has the title of the next show on it in between presentations.

Dan Dowling, artistic director of the Science Theatre Program, was my contact.

As a former employee of the Museum of Science, I was provided considerable support and access in order to carry out data collection.



natural history dioramas in wall

Figure A.4. Diagram of Museum of Science, Boston performance space

The Museum of Science is located in Boston, Massachusetts (pop. 2005: 559,034). It was built over the mouth of the Charles River beginning in 1951 and encompasses 130,000 square feet of exhibition space. It is a large-scale science museum facility. Performances have taken place in a number of areas of the Museum, on stages

and in exhibitions. In 1998, the Science Live Stage was built to provide a state of the art facility for demonstrations and performances.

The first performance I collected data around was Frankly Franklin, a play written by Margaret Ann Brady, who also alternated as a performer in the show in a rotation with several other actors on staff at the Museum of Science. The set of this play had a cart with a large soup pot on it, one chair, and a cart with an object on it covered with a cloth. This was a twenty-five minute performance with two characters who are siblings. They could be brother and sister, or sister and sister, depending on the cast. The premise of the show is that these two siblings run an eating establishment that has been around since Ben Franklin's time, so that they have been running it for 275 years. The educational objective, according to Brady, was to "feature a wide range of Franklin's of accomplishments and his significance as a scientist, and to explain the kite experiment" (personal interview, September 30, 2007). Artistically, Brady's goals for the performance were, "to use humor to make Franklin's story accessible, to make him fully rounded as a person, and accessible" (personal interview, September 29, 2007). The two characters were to exemplify what Franklin did scientifically in different ways. One of the actors made an announcement, out of character, before the show, inviting visitors to sit down and to ask questions following the show.

There are lights that go dark before the show, then go up to indicate the beginning. The actors walk onto the stage and in character, introduce themselves to the audience and use direct address most of the time. They did not put the audience into any role. As the play began, they were preparing to open their restaurant for the day. The

costuming was a mix of past and present, with pieces from Franklin's time, such as a three-pointed hat, and contemporary pieces, such as a Red Sox t-shirt. Their interaction with each other was tinged with the familiarity of contentious siblings and verbal sparring, which provided humorous moments. They explained how they knew about Franklin as a customer, and then went on to detail his various experiments. Each character also quoted Franklin throughout the play. These quotes were also visible on a screen above the stage. This screen provided various media-accompaniment for sections of the show. For instance, a video animation was played to explain Franklin's kite experiment. At the end of the show, one character brings out a small Van de Graaf generator, which spectators are then invited to play with in a demonstration after the show.

The second show used for data collection at the Museum of Science was called *Unsinkable? Unthinkable!* by playwright Jon Lipsky. The set of the play consisted of a large free-standing marine bell and a footlocker trunk at center stage. This twenty-minute solo performance is about the sinking of the Titanic and the technological theory that posits that as humans move forward technologically, more rather than fewer disasters should be expected. This play has been performed at the Museum of Science for many years, and was initially created to accompany an Omnimax film about finding the Titanic wreck

The premise was that the lead character is an albino crab who lives on the wreck of the Titanic and knows everything about it. This non-human character served as a sort of narrator of what happened to create the Titanic disaster, and in telling the tale, turned into many people that were on the ship, such as Fred Fleet, the lookout who spotted the iceberg. There were bits of songs sung throughout the show, accompanied by pre-recorded music. Before the show, the actor made an announcement of the play, invited visitors to watch and to ask questions after the show. The lights went down following the announcement and pre-show music faded out. Lights came up to indicate the beginning of the show.

At the beginning of the show underwater photographs of the wreck were shown on the large screen above the stage with rag time music playing. At times, there were other images from the Titanic on the screen. The actor came out in character, stopped upon seeing an audience and said, "Oh human beings, you're my favorite species!". Thus the audience was positioned as humans by a non-human character. She proceeded to tell the audience about all that went into creating the sinking of the Titanic, changing voice and characterization in a constant flow of different characters. Then in a narrative shift, the Titanic disaster was juxtaposed with the Challenger disaster. There were many moments of humor and pathos in this play. At one point, the actor looked out at the audience and said, "Oh humans, you're so cute. I can always count on you to repeat yourselves" (Lipsky, 1995). The performance ended with the story of Daedalus being told by the crab, who finished by singing a melancholy stanza of an old country tune, "Deep Blue Sea Willy" by Jimmy Dean, as the lights faded to dark.

Reference

Lipksy, J. (1995). Unsinkable? Unthinkable! play script. Boston: Museum of Science

APPENDIX B PRE-PERFORMANCE SURVEY

Code	Show
Pre-Performance Survey	
Age Museum Member? Y/N Do you consider yourself a theatre-goer? Y/N	Gender M/F Tourist? Y/N Date
Thank you for taking the time to help by giving feedback at	bout this program.
A. Please choose between the following two statements for the or your <u>main</u> expectation for your museum visit.	ne that best describes
I came to the museum today expecting to learn something.	
I came to the museum today for enjoyment.	
B. Please choose between the following two statements for the or your <u>main</u> expectation of the performance.	ne that best describes
I am attending this performance to learn something.	
I am attending this performance for enjoyment.	
Other expectations (please explain)	

APPENDIX C POST-PERFORMANCE SURVEY

Code							Show
		Post	-Perfor	mance S	Survey		
C. How did you react to found in	related libeliev	d to liked _ able _	cou	ld not r dislike id not fi	elate to d nd belie	evable _	
D. How did you react to found in	related libeliev	d to liked _ able _	cou	ld not r dislike id not fi	elate to d nd belie	evable _	
E. Please describe three	e events	item	s or mo	ments v	ou mos	st remer	nber in the performance
1.		, 100111					noor in one personnance
2.							
3.							
F. Please rate your over	all read	ction o	f how y	ou felt	about t	he perfo	ormance (circle one)?
Highly negative	1	2	3	4	5	6	Highly positive
G. Would you classify t	this per	forma	nce as l	naving ((circle c	one):	
No factual information	1	2	3	4	5	6	A lot of factual information
No emotions/feelings	1	2	3	4	5	6	A lot of emotions/feelings
H. Did the performance In what way(s)? I. In the pre-performance Did the perform In what way(s)?	ce surve	ey, you	ı rated	your ex	pectations?	ons for a	attending the performance No

APPENDIX D REQUEST FOR CONTACT INFORMATION

REQUEST FOR CONTACT INFORMATION

8-10 weeks after this performance:	contacted orien
name	
phone	or
email	
Please state your preferred mode of communication: telephone	email

APPENDIX E FOCUS GROUP INTERVIEW QUESTION GUIDE

Focus Group Interview Question guide

These are referencing questions asked in the survey.

- 1. Could anyone begin by sharing some of their reactions to characters or situations in the performance? Were there any particularly strong or interesting reactions to specific characters or situations in the performance?
- 2. Can you talk about why you think you reacted in these ways? What made you relate to/not relate to, believe in/not believe in, etc. the characters/situations?
- 3. What did the performance mean to you or what meaning did you take from it?
- 4. Please share one or two of the items or moments you remember from the performance. Would you characterize these as factual or related to feelings?
- 5. Did your response to the performance surprise you? or Was anyone surprised at his or her response to the performance?
- 6. I noticed (laughing/crying/talking at certain point) during the performance and I wondered if anyone noticed that, and could talk about what this reaction was about?

APPENDIX F QUESTION GUIDE FOR FOLLOW-UP INTERVIEWS

Question Guide for Follow-up Interviews via telephone or email

(written into email or beginning tele	phone conversation)
Hello. You are being contacted as y	ou agreed to when you were surveyed or interviewed
after a performance at	As before, your participation in this research is
voluntary. If you have any questions	s, please feel free to email me at <u>hughes.929@osu.edu</u>
or call me 740-504-9089. Your feed	back in important and very much appreciated.
Thank you.	
Catherine Hughes	

- 4. Can you remember the performance you saw?
 - a. If so, please describe what it meant to you.
- 5. Can you recall three items/moments from the performance as they did on the survey?
 - a. Please describe why you believe you remembered these items.
 - b. Please describe the qualities of these items.
- 6. This is your opportunity to make any comment or provide any feedback about the performance you saw. Please feel free to make any comment.

APPENDIX G

QUESTION GUIDE FOR INTERVIEWS WITH CREATORS OF PERFORMANCES

Question Guide for Interviews with Creators of Performances

- 1. Please identify and discuss your aesthetic goals for this performance.
- 2. Please identify and discuss your and educational goals for this performance.
 - a. What was the process for creating this performance?
 - b. Who was involved?

APPENDIX H OBSERVATION FORM

Observation Form

BEFORE Performance		
Observed Behavior	check	Description
Visitors standing and waiting		
Visitors sitting and waiting		
Visitors talking		
Visitors asking questions		
Other		
	nce Size	
Observed Behavior	check	Description
Movement in audience related to		
movement in performance		
Laughing		
Vocalizations (talking back,		
heckling, agreement, etc)		
Shifting in seats		
_		
Audience participation		
1		
Movement in/out of performance		
area		
Other, such as change in audience		
size		
	1	
AFTER Performance		
Observed Behavior	check	Description
Applause		
Movement to disperse		
Approach performer/ask questions		
Other		

APPENDIX I

PRE-PERFORMANCE SURVEY INVITATION TO PARTICIPATE SCRIPT

Pre-Performance Survey Invitation to Participate Script

Hello. My name is Catherine Hughes. I am conducting a research study and seeking volunteers to participate in a survey. The pre-performance survey has two questions and should take one to two minutes to complete. Your participation is voluntary.

Feel free to ask questions before making your decision whether or not to participate.

The purpose of this study is to investigate museum visitors' responses to performances that are part of a museum visit. You are being asked to participate in this research study because I am interested in hearing what you think and feel about the performance. Your responses will contribute to understanding the impact of these performances. If you feel at any point you don't want to continue, that's fine. If you choose to participate, efforts will be made to keep your study-related information confidential. You will also notice a second page with a request for your email address for a follow-up interview. This is also completely voluntary.

Thank you for your time.

APPENDIX J

POST-PERFORMANCE SURVEY INVITATION TO PARTICIPATE SCRIPT

Post-Performance Survey Script

I will be handing out the second page of the survey, which has eight questions about your response to the performance. It should take about ten minutes to fill out, depending on how much time you want to take. I am also inviting you to take part in a short focus group interview to discuss your responses to the performance. This will take place close by (give location) and should take approximately fifteen minutes.

No one is required to complete the surveys or the interview. Your consent to do either is completely voluntary and there are no repercussions if you do not.

I very much appreciate your help. There are no personal questions, and no right or wrong answers. I am asking about your responses to the performance.

After you fill out the survey, you can leave the sheets on your seats or hand them to me. For those willing to be interviewed, just stay in your seats for the moment. Thank you for your assistance with this research project.

APPENDIX K SCRIPT AT BEGINNING OF FOCUS GROUP INTERVIEW

Script at beginning of Focus Group Interview

The purpose of this study is to investigate museum visitors' responses to performances that are part of a museum visit. You are being asked to participate in this research study because I am interested in hearing what you think and feel about the performance. Your responses will contribute to understanding the impact of these performances.

As stated, you are going to be asked about your response to the performance. You have already filled out a survey, so you know what the questions are like. There are no correct or incorrect answers. Whatever your responses are will be fine. A video camera will record the interview, so that it can be transcribed later. No one but the researcher will have access to or use this video recording. You will then be emailed (your choice) 72 hours following the performance and 8 to 10 weeks later to discuss the performance.

The interview will take approximately fifteen minutes, but it may be less or more. Follow-up interviews will be shorter. You may leave the study at any time. If you decide to stop participating in the study, there will be no penalty to you,

APPENDIX L

SCRIPT TO SOLICIT PARTICIPATION FROM CREATORS OF PERFORMANCES

Script to solicit creators of the performance

Hello. My name is Catherine Hughes and I am PhD student researching visitors' responses to pedagogic performances in museums. As part of my study, I asked the Museum (of Science, or Historical Society) for permission to talk to visitors who see the play you were a part of creating. I have been granted that permission, and I would also appreciate talking with you to get your perspective on the process of creating this performance. Your responses will contribute to understanding the impact of such performances. This is completely voluntary, and you will not be penalized in any way if you do not wish to participate.

APPENDIX M CONSENT TO PARTICIPATE IN RESEARCH FORM

The Ohio State University Consent to Participate in Research

Researcher: Catherine Hughes < hughes.929@osu.edu>

This is a consent form for research participation in a focus group interview. It contains important information about this study and what to expect if you decide to participate.

Your participation is voluntary.

Please consider the information carefully. Feel free to ask questions before making your decision whether or not to participate.

Purpose:

The purpose of this study is to investigate museum visitors' responses to performances that are part of a museum visit. You are being asked to participate in this research study because I am interested in hearing what you think and feel about the performance. Your responses will contribute to understanding the impact of these performances.

Procedures/Tasks:

As stated, you are going to be asked about your response to the performance. You have already filled out a survey, so you know what the questions focus on. There are no correct or incorrect answers. Whatever your responses are will be fine. A video camera will record the interview, so that it can be transcribed later. No one but the researcher will have access to or use this video recording. You will then be emailed or called (your choice) 10-12 weeks following the performance to discuss the performance.

Duration:

The interview will take approximately thirty minutes, but it may be less or more. Follow-up interviews will be shorter and take no more than ten minutes.

You may leave the study at any time. If you decide to stop participating in the study, there will be no penalty to you.

Risks and Benefits:

There are no discernable risks to your involvement. You will not benefit directly from participating in the study.

Confidentiality:

All interview data will be de-identified prior to analysis. Pseudonyms will be substituted for participants names at the time of transcription. All names, phone numbers, or emails will be kept locked in a cabinet with all videotape recordings.