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Anxiety: The Embodiment of a Multisystem Response

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Anxiety: The Embodiment of a Multisystem Response
Ellen Reynerson - BFA Honors Thesis
Anxiety: The Embodiment of a Multisystem Response

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Submitted to the Department of Theatre & Dance in fulfillment of the requirements of a BFA Degree in Dance and Honors

University of Colorado Boulder

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Although I was only diagnosed with an anxiety disorder as a teenager, I’ve struggled with it most of my life. I have support systems in place, but sometimes I still feel ashamed and weak because of my anxiety. There are many moments when my feelings seem invalid to both myself and others, and I believe this stems from an unintentional gap in emotional understanding between those who suffer from anxiety disorders and those who do not. My personal relationship to the subject brought me to the question, “How can anxiety sufferers feel like they matter, are seen, and are understood?”

My years of studying dance at the collegiate level have opened my eyes to how dance can be a perfect vehicle to foster new ways of understanding. Celeste Snowber, P.h.D., reflects on the topic, saying, “Dance is our birthright. Movement is knitted into the fabric of our beings, and the very first dance begins in the womb” (Snowber 53). Dance and movement are ways of knowing that are ingrained in all of us. With this knowledge, dance seemed like the perfect way of letting people know that they aren’t alone.

For my Bachelor of Fine Arts thesis, I explored how anxiety can be translated into movement using the vehicle of dance. Through the process of unpacking a topic less discussed, I used dance as a way of attempting to help validate the feelings of anxiety sufferers while giving a new perspective to non-anxiety sufferers. Anxiety can be defined as “multisystem response to a perceived threat or danger” (“Anxiety” 317), so the goal of my dance piece was to portray my unique multisystem response through the multisystematic elements that encompass a dance performance. Along with this, I had the hope of generating what is referred to as a kinesthetic empathetic response in audience members, or the feeling as if one is “participating in the
movements they observe” just from the act of viewing movement (Reason et al. 2011). In theory, this kinesthetic empathetic response would assist in creating a connection with audience members, promoting education about the mental inner landscape of a person experiencing anxiety.

**Research in Preparation**

My first topic of research was on anxiety itself. Knowing that the definitions of anxiety can vary, I chose a definition based on its potential for artistic unpacking and its alignment with my own experience. Gale Encyclopedia of Medicine’s eloquent definition guided my research by defining anxiety as “a multisystem response to a perceived threat or danger. It reflects a combination of biochemical changes in the body, the patient’s personal history and memory, and the social situation.” It continues, saying, “human anxiety involves an ability, to use memory and imagination to move backward and forward in time, [so] a large portion of human anxiety is produced by anticipation of future events. Without a sense of personal continuity over time, people would not have the ‘raw materials’ of anxiety” (“Anxiety” 317).

It’s important to understand that anxiety is deeply rooted in our biology, and for good reason. Human beings possess an Autonomic Nervous System (ANS) (318), which kicks in subconsciously when confronted with a perceived threat. We respond in “fight or flight” mode, putting us in a state of hyperarousal thanks to the elevated level of stress hormones in our bloodstream (318). The ANS is a normal body function that helped humans evolve, but in modern times, our perceived threats have changed while the ANS reaction has stayed the same. The non-dangerous threats we often face now don’t give us the option of physically fighting or
fleeing, so the stress hormones absorb into the body instead of being absorbed through the fight or flight process, leaving us in a hyperaroused state (318). This state causes the multisystem response, manifesting itself in somatic, behavioral, cognitive, and emotional symptoms (319). Anxiety disorders arise when this anxiety becomes persistent (Bufka et. al.). With this research, I started to create the work by identifying two pieces of information from the Gale Encyclopedia of Medicine definition that I wanted to convey through movement: a multisystem response, and anxiety and its relationship to time, memory and anticipation.

My second topic of research in preparation for creating the work was to gain knowledge about the concept of kinesthetic empathy, an idea crucial to conveying my experiences as an anxious person to the audience. Kinesthetic empathy, in short, is the experience of feeling as if one is “participating in the movements they observe” just from the act of viewing movement (Reason et al. 2011). This in turn generates feelings of empathy from those who view the movement. These feelings of empathy are an important element in my work regarding anxiety because I believe that empathy is a catalyst for understanding.

When discussing the concept of kinesthetic empathy in regards to dance, it is imperative to put it in context with the work of Matthew Reason of York St. John University and Dee Reynolds of the University of Manchester. Reason and Reynolds studied kinesthetic empathy through a multi-year research project in collaboration with the University of Manchester, the University of Glasgow, York St. John Universities and Imperial College London. The project, named *The Watching Dance Project*, used “audience research and neuroscience to explore how dance spectators respond to and identify with dance” (Reason et al. 2011). It was described as a multidisciplinary project using the methods of Transcranial Magnetic Stimulation (TMS),
Functional Magnetic Resonance Imaging (fMRI) and qualitative audience research to generate their findings. After analysis of their data, they unearthed trends in spectator responses to dance, such as admiration of virtuosity (Reason et al. 2010, 58), imagining themselves dancing (60) and the impact of movement paired with music (63). They also discovered that people responded to “sensations and feelings of anticipation and suspense produced by choreographical progression and development” (64), and from the “process of engaging with the work rather than elements found within the work alone” (68). The term virtuosity can be defined in a variety of ways, so it is important to note that Reason and Reynolds define the term virtuosity as “a performance [that] elicits a ‘wow’ factor, often linked to a very embodied engagement, and for some spectators it is this thrill that forms a very strong drive and reward in watching dance” (58).

The Watching Dance Project’s multidisciplinary approach made it a hub for research on kinesthetic empathy. The project held conferences, workshops, and performances pertaining to the subject, and created a website to archive their work. I used this information to both contextualize my work in the greater scheme of research and performance being done on kinesthetic empathy and to generate ideas to begin my creative process.

**Methods: Choreographic and Creative Processes**

I began my creative process by mining my research on anxiety, kinesthetic empathy, and the findings of Matthew Reason and Dee Reynolds. Starting with the anxiety research, I identified two pieces of information from the Gale Encyclopedia of Medicine definition that I wanted to convey through movement; a multisystem response, and anxiety and its relationship to time, memory and anticipation. Using the research findings of Reason and Reynolds on
kinesthetic empathy, I extracted the trends of admiration of virtuosity, the impact of movement paired with music, and anticipation and suspense to incorporate into my own work. It was my hope that these trends might amplify the kinesthetic empathic response from audience members, as they did with Reason and Reynolds.

Before I could begin weaving the research into my work, I had to create clear relationships between my dancers so that there was a canvas to project the research on to. My vision was to depict an anxiety disorder as a relationship between a human and a non-human entity, as a way to create an alternate understanding of what it is like to live with an anxiety disorder. I originally started out with eight dancers with the intention that four would be “Humans” while the other four would be the non-human entities, which I referred to as “Anxieties.” After some inevitable casting shifts, I ended up with only seven dancers, but I decided to keep my original plan, only with one less Human. The uneven numbers of Humans in relation to Anxieties actually turned out to be a change that worked well with my concept; the four Anxieties versus three Humans shed light on how anxiety can be overwhelming and overpowering.

**The Multisystem Response**

To convey the multisystem response anxiety can create, I correlated elements of the dance production with elements of the multisystem response. The first system of response was Somatic, where anxiety manifests itself in physical symptoms such as difficulty breathing, GI issues, dizziness, and tightness in chest, among others (“Anxiety” 319). I used movement vocabulary as the element to demonstrate this response. One demonstration of this concept was
the creation of a motif in the form of a gesture that the Humans performed. The gesture was a
motion of grabbing an imaginary arm placed around their neck as a way of expressing the
constriction and difficulty breathing that anxiety can cause.

The second system of response was behavioral, which is when the person experiencing
anxiety exhibits behaviors such as pacing, finger tapping, trembling, or restlessness (319). This
system was demonstrated by the dynamic qualities of the movement and the fast paced, dense
nature of the phrase work. This can be seen in the piece during the section where the Humans
start off dancing a phrase of movement slowly and then increase in speed until they are dancing
in a state of bodily panic. Their only release from the movement was when the Anxieties decided
to let them relax, shown by the breaking of eye contact between the Humans and the Anxieties.

The third system of response was Cognitive, consisting of obsessive thoughts, feelings of
doom, and anxiety provoking ideas (319). I chose to demonstrate this system through the sound
score of the piece. I wanted to create an on-edge feeling for both the audience and dancers, so I
chose music with aggressive sounds that generate feelings of restlessness.

The fourth system of response was Emotional, where feelings of tension, nervousness,
panic, or terror come into play (319). In my experience, the emotional piece of anxiety is the
most overbearing and complex, and the center of anxiety. I chose to demonstrate this by using
Reason and Reynolds’ research on kinesthetic empathy as a way to stir up feelings of unease in
the audience members. I focused on two key elements; “sensations and feelings of anticipation
and suspense produced by choreographical progression and development” (Reason et al 2010,
64), and emotional responses from the “process of engaging with the work rather than elements
found within the work alone” (68). I created suspense through the progression of the musical
score, utilizing moments of stillness and incorporating dynamic ranges into the movements. I engaged with the audience by asking the four Anxieties to look audience members in the eyes, creating a sense of vulnerability and being truly seen.

Anxiety and its Relationship to Time, Memory and Anticipation

As discussed in Gale Encyclopedia of Medicine, “human anxiety involves an ability to use memory and imagination to move backward and forward in time, [so] a large portion of human anxiety is produced by anticipation of future events. Without a sense of personal continuity over time, people would not have the ‘raw materials’ of anxiety” (“Anxiety” 317). This statement rings very true for me, so I was interested in incorporating this idea into my piece as well.

Through my years of psychotherapy, I’ve learned about the importance of Cognitive-Behavioral Therapy (CBT) in combating anxiety. With CBT, the patient learns to identify thought patterns contributing to anxiety and change those thinking patterns (Bufka et. al.). When thought patterns repeat, the cycle of anxiety repeats as well. I was interested in showing the CBT process through the progression of the piece, because the process can help break the cycle brought on by memory and anticipation.

Through my creative process, the three Humans came to represent three separate experiences of anxiety. Drawing from my understanding of my anxiety, I crafted three different moments in time when I experienced an anxious episode and layered the performances so they could be viewed at once. The performances of the three Humans are similar but all involve variation, just like how my anxious episodes play out. I was interested in depicting similar paths
taken to one destination, like being stuck in a loop of habit that perpetuates the anxiety. Much of the Human’s movement are not unison but very similar, showing similar paths taken time and time again when a specific pattern of thinking provokes anxiety. I expressed the frustration of finding myself in the same circumstance over and over again by having the Humans congregate in sections of unison movement, to reveal how similar decisions can create the same outcome.

At the end of the piece, I demonstrated the effects of breaking the anxiety cycle with the assistance of CBT. In the choreography, this happens when one of the Humans does not give in to the Anxiety’s demands. For a moment, the Human defies her anxiety and triggers a fight that influences the rest of the Humans to fight as well. This defiance signifies a different decision made by the Human. However, I know firsthand that the fight is never truly over, there is no purely “happy ending” where everything is resolved. I didn’t want to give that impression in the piece, so I ended it with the beginning of the next cycle of anxious thinking, an undefeated Anxiety approaching the unsuspecting Human as the lights fade out.

**Incorporating the Findings of Matthew Reason and Dee Reynolds**

Another aspect of the project was incorporating the findings of Matthew Reason and Dee Reynolds from their experiment *The Watching Dance Project* into my work. They found trends in the form of performance elements that resonated with audience members, creating a sense of empathy. This empathy encourages audience members to engage with the dance mentally, while also fostering an experience of “inner mimicry” (Reason et al. 2010, 54). Inner mimicry, a term coined by dance critic John Martin, refers to a form of audience experience where they feel sensations of “actively participating in the dance and directly experiencing both its movements.
and their associated emotions” (54). To explore creating kinesthetic empathy, I chose to incorporate the trends of the admiration of virtuosity (58), the impact of movement paired with music (63), and anticipation and suspense (64). My hope was that in incorporating these trends, I could evoke feelings of inner mimicry and engagement in the audience members. These feelings have the potential to help the audience view anxiety from a new perspective.

When incorporating the trend of admiration of virtuosity into my piece, I defined virtuosity the same as Reason and Reynolds, calling it “a performance [that] elicits a ‘wow’ factor, often linked to a very embodied engagement, and for some spectators it is this thrill that forms a very strong drive and reward in watching dance” (58). I created this sense of virtuosity in my piece by crafting movement phrases that used large dynamic movements and the traveling of bodies in space. I made sure to have moments that allowed the dancers to feel like they were actively dancing, creating physicality that engages audience members. The importance of virtuosity in my work is already a value I have developed as an artist, however, this research has brought to light how I can use expansive movement as a tool in evoking emotion by creating kinesthetic empathy.

I incorporated the impact of movement paired with music by carefully selecting music that reflected emotions that I wanted to portray throughout different sections of the piece. I chose a soft, looming soundscape for the beginning because I wanted to create a sense of impending unease, but not explicit tension. This correlates with my personal experience at the beginning of an anxious cycle; I know the anxiety is coming, but it hasn’t escalated yet. The second piece of music was played during the main body of the piece. It was a constant bombardment of sound for six minutes, chosen with the intent of creating tension that seemed never-ending. This reflects
my experience because my anxiety is often at its worst when I’m waiting, and my anxiety escalates when I don’t know when the situation will end. This concept ties back into anxiety and its relationship to time, memory and anticipation, as outlined in the Gale Encyclopedia of Medicine. The third piece was a very short burst of intense music with frightening undertones, used with the intent of creating an uncomfortable atmosphere for both the audience and dancers. This depicts the sudden escalation and abrupt end to many of my anxious cycles.

I incorporated the trend of anticipation and suspense by creating an energetic progression from the beginning to the end of the piece. Using my knowledge of the the multi-sensorial experience anxiety gives, I translated that into a performance experience by making sure that the movement and music at the beginning of the piece were much less stimulating than the movement and music used at the end.

**Evaluation**

When evaluating this piece for its successes, it is important that I give context to how I have felt about many of my previous choreographic works. There are very few times when I’ve been satisfied with the pieces I’ve created, but I always had trouble finding the causes of dissatisfaction. I have spent many years with the unanswered question “Why is this not working?”. One of the main successes of this work was unearthing a portion of the answer to that question.

My pervious creative process consisted of approaching every element of choreography systematically. I would begin by choosing a piece of music to choreograph to, and then creating set choreography to every count of music. This created pieces with no room for error and no
element of surprise. My choreography relied on everything going according to plan, and if not, I perceived it as a failure. Interestingly enough, this aligned with my anxious mental landscape at the time; I navigated my world in such a way that everything was metaphorically black or white. I had to have a plan for everything or anxiety would strike. After this BFA process, I realised that planning is my safety net in both my creative work and life as a whole.

The major revelation that I have walked away with after creating this piece was working with “grey space”. Just like my thinking was black and white, my choreography was as well. Once I disrupted my process and forced myself to create in an unsystematic manner, I found a balance between hard-set choreography and total improvisation. The mix of choreographic styles that the piece became still encompassed my need for structure and precision, but had a newly found room for error and an organic feel that my previous pieces had not. I have a new sense of “letting go” that I’ve never felt before in both my creative endeavors and my life overall.

To create this piece, I stepped away from the creative process that I had stuck to for so long and dove into a new way of creating work. My mentors help me to see that disrupting my process might be the key to discovering why I was dissatisfied with my choreography. One of the main ways I went about disrupting my previous process was by not solidifying a sound score until the movement portion of the piece was set. To say this disruption gave me frustration is an understatement, because my old choreographic process has relied heavily on music from the beginning as a way to set the progression of the piece and initiate movement invention. I used it as a choreographic roadmap, and when that roadmap disappeared, I was forced to discover new ways of generating both movement and choreographic progression when music wasn’t the driving force.
When it came time to select the music to create the final score, I was hit with another wave of frustration stemming from an unfamiliar creative process. I had to search for music that fit the emotions, tempo and progression of what had already been created. Since what I had created called for very specific music to evoke the kinesthetic empathetic response I was looking for, the process of finding it was trial and error right up until the moment when the music had to be set. The hours of experimentation with music paid off; each piece of music fit the mood of the specific sections while simultaneously working together as a whole to encourage progression of the piece. This progression tapped into Reason and Reynolds’ trend of anticipation and suspense, which played a part in creating the kinesthetic empathetic response from audience members. In the end, I was pleasantly satisfied with the musical score that evolved out of a different creative process than I had used before.

The staging of the piece was another curveball that disrupted my creative process, ultimately bringing a whole new dimension to the piece. At the beginning of the process, I expected the relationship of the audience to the stage to be in proscenium setting. I had already begun to craft the piece when I was told that it would be an alleyway setup with the audience on two sides instead of one, creating a space with no front. Since I had never choreographed in that orientation before, it disrupted my process, causing initial frustration. However, the frustration turned into liberation when I began to use the setup to my advantage to further my goal of portraying an anxious episode through performance. The setup worked because it gave the audience choice on how they could view the piece. This reflects the element of choice that I’m faced with when anxiety strikes, I can view it from different angles and either let it manipulate me, or I can rise above it. Another success of the setup was how it assisted in creating an
immersive atmosphere for the multisystem response. It felt as if the Anxieties were coming out of the walls, creating audience stimulation from all angles. Dissolving the proscenium also dissolved expectation of what my piece “should” be, allowing me to turn to my information and movement research as new ways of generating choreography.

When considering things that could have been more successful, I look to a moment that was not as strong choreographically because it felt more “placed” than the rest of the piece. After the Humans did the pacing and breathing improvisational score, they transitioned into a line to begin getting grabbed around the shoulder by the Anxieties. The Humans arrived in their positions in an inorganic way, which was the opposite of what I had intended. I had envisioned them to arrive one at a time, as opposed to walking there together. The Anxieties also walked into that section together in a straight line, which was not what I intended either. This created a moment of predictable choreography rather than suspenseful experience. The predictability reminded me of the black and white thinking that I worked so hard to leave behind. I only realized that the moment was not like I wanted when we went into tech rehearsals, therefore I didn’t have enough time with my cast to change it. In the future, this could be avoided by better communication with my dancers about when I’d like things to look randomized, rather than systematic.

An aspect I regretfully overlooked that could have been done to make the process more successful was to have more outside feedback on the work at earlier points in the process. This was an error on my part. I asked for feedback too late, and once I got it, there wasn’t time to make the changes that were suggested. For example, I received feedback saying that the
partnering work where the Anxieties crawl on the backs of the Humans was an interesting concept that could be greatly expanded, but it was too late to change the structure dramatically.

Experimentation with a different choreographic process is something that will help inform my future work. I had a creative process before beginning my BFA work, but being encouraged to experiment with different ways of working informed me of the parts of my process that work to my advantage, and which parts unintentionally stifle my creative voice. I had to let go of my desire to choreograph every single thing to music, and when I did, wonderful coincidences began to reveal themselves. These coincidences were far more interesting to me as both a viewer and choreographer, and helped the dancers build a relationship with the movement instead of a dependency.

Conclusion

I am interested in continuing my research recreating the findings of Matthew Reason and Dee Reynolds associated with their experiment, *The Watching Dance Project*. I consider kinesthetic empathy to be an important element in my work of translating human experience into movement, so I would like to formally research the impact of my performances on audience members. In the future, I hope to collect feedback from audience members associated with the trends outlined by Reason and Reynolds, such as their thoughts on virtuosity, if they imagined themselves dancing, the impact of movement paired with music, how the progression and development of the piece impacted their feelings of suspense and anticipation, and how they engaged with the work mentally. To collect this feedback systematically, I would have to submit a proposal for the study of human subjects to the University of Colorado Boulder’s Institutional
Review Board for ethical review. I consider this valuable work as an artist, since a connection with the viewer is an integral part of creating a piece that promotes education of the topic it discusses.

The purpose of unpacking my own experience was to help sufferers of anxiety feel less alone and understood, as well educating those who do not experience anxiety disorders. I believe I was successful in creating a performance that was accessible to both parties, using kinesthetic empathy as the catalyst for understanding. My deeper research into anxiety, kinesthetic empathy, and the findings of Matthew Reason and Dee Reynolds allowed me to craft a piece that was both satisfying to watch from a choreographic standpoint, as well as intriguing to experience from an emotional perspective. Using the phrase “multisystem response” (“Anxiety” 317), I created a dance piece with the intent of expressing my own individual multisystem response through different elements of the dance production, while at the same time creating an experience of kinesthetic empathy for the viewers. The synthesis of the research and my artistic vision accomplished what I hoped it would, the finished piece depicted an anxious cycle with no clear conclusion, uncertainty for the audience throughout the performance, and a new way of viewing anxiety’s impacts on a human being.
Bibliography


Photo Gallery - Rehearsal Process (photos by Sydney Chinowsky):
Final Performance (photos by Ian McMorran)