

shiFT:

An Exploration of Empathy

by

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## ABSTRACT

“shiFT: An Exploration of Empathy” is a document detailing the process of creating the evening length dance performance, “shiFT,” through the theoretical, somatic, kinesthetic and choreographic research of empathy. This research specifically addressed the ability to consciously take on an empathetic perspective and the change that must occur within oneself to co-create empathy. It focused on the factors that impede empathetic function and the role of vulnerability in experiencing empathy. Throughout the creation of this concert, the choreographer employed empathy building exercises and concentrated creative processes constructed from her research into the neurological, emotional and physical aspects of empathy with a cast of ten dancers. Choreographer and dancers worked collaboratively to create an empathetic environment, a pre-show film installation titled GREY MATTER, and the culminating evening length concert piece “shiFT.”

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## **Introduction**

Empathy doesn't make assumptions, empathy forges communication that is inquisitive, that is non-judgmental, that is validating and compassionate. And when we start to communicate in that way, the primary thing it does is change us. (Parkin, 2015)

The process of creating empathy is similar to the process of creating dance, both generate new meaning and hold the power to form human connection. The opportunity to study both processes hand in hand was a rewarding and informative experience. This document exists as a way to reflect on and draw conclusions from my time creating the concert length dance performance "shiFT," with ten dancers, based on empathetic concepts explored through theoretical and kinesthetic research.

My recurring conflict with empathy drew me into this type of concentrated and multi-faceted investigation. Some of my personal experiences with empathy were leaving me confused and troubled. I would lay awake at night consumed by stories I had come across of people or animals in pain or struggle. I could not watch even fictional movies or TV shows that planted suggestions in my head of actual suffering occurring in the world that I had no power to prevent. I would bounce back and forth between either avoiding the horror to save myself these painful reflections or actively seeking out information that might empower me to help. As I wrestled within, I wondered why others seemed semi, even totally, unfazed by the same type of information that so disturbed me. I also could not help but notice the seeming lack of empathy present in our current political and social climate. As I witnessed day-to-day interactions, I wondered

whether empathy was a concern at all for others. This led me to wonder: What is empathy? Why does it exist? How does it exist? Can there be too much empathy? What causes empathy to apparently or actually disappear in some? Although I had my own ideas, I could not fully answer these questions. As I sought answers, the issue became increasingly complex, yet this only fueled my desire to better understand empathy.

Researching the science behind empathy is comforting because it translates empathy from an elusive mystical emotion into something that can be observably understood. “Our scientific understanding of empathy has greatly improved within the past two decades owing to a huge amount of research into how this capacity evolved, exists across species, and is instantiated in the body and brain” (De Waal, 2017, p.507). Empathy research is scattered throughout a variety of different schools of thought and methodology. In an effort to contribute to this expanding field of research, I wanted to explore empathy through movement and choreography. In this paper, I will discuss, from my own assessment, the importance and impact of empathy through the lens of dance. I will share research that supports my understanding of that importance as well as the conclusions that my dancers and I discovered through our choreographic research.

### **Context**

This project builds upon the research of several theorists in dance, somatics, neuroscience, psychology, and behavioral science. I studied the concept of empathy and its significance in living relationships through various perspectives to gain a more complete understanding of empathy’s varied forms and functions. Empathy is generally defined as the ability to understand and share the feelings and experiences of another person. Genuine relationships can be formed through an empathetic connection between individuals or even masses of people. Those relationships create an environment where

life outside of oneself is valued, and living beings are supported rather than used and discarded for personal gain.

### **Embodied Cognition and Empathy**

I researched the neurological processes of empathy to gain information on the inner workings of empathy at a functional and microscopic level and related that knowledge to the theory of embodied cognition. Embodied cognition illuminates the necessity of studying the cognitive functions of the brain in conjunction with the body. This is oppositional to the line of thought that the brain makes all the decisions alone and the body follows the direction. Embodied cognition clarifies that while the body is affected by the mind, mental states are equally influenced by the body, they work as one whole. “Cognitive scientists no longer believe that the brain is solely responsible for all our actions; instead, a sophisticated response system in the body facilitates complicated problem solving and critical thinking” (Thompson, 2012). Embodied cognition is one of many theories that give substance to somatic study and movement research. As the mind, body and spirit are one connected being, they are therefore inescapably influenced by each other. Change in one, will cause change in the other. This is the basis of somatic work; by attending to any of these aspects of the soma, a form of healing can take place in the whole. The most effective change comes by an integrated focus on all three facets of the soma and their fundamental relationships to each other. It was important to utilize somatic approaches when in the movement research phase to allow for the dancers to encounter their own understanding of empathy and study their experiences through their inner perception. In order to cultivate organic reactions to the exercises and the movement journey, the dancers needed to be free to experience for themselves their own impressions of empathy instead of feeling pressured to dull their perceptions to fit someone else’s agenda.

## **Evolution and Empathy**

Two things I learned through my research that became important foundational concepts in this project were that our evolution supports empathy and there is also a system in place of constant flux. “In lay parlance as well as the scientific literature, the term empathy refers to both the sharing of emotions between individuals and the adopting of another's point of view. This capacity allows individuals to quickly relate to another's state, which is essential in species that provide extensive parental care and work cooperatively towards common goals” (De Waal, 2017, p.498). In a species whose young require attention for an extended period of time post-birth, empathy is a matter of the species’ survival. The parent is provided with empathetic impulses to respond to the needs of their children.

Offspring care most likely strengthened the evolution of empathy because of the selection pressure to develop a rapid, motivating emotional connection between helpless neonates and their caregivers. Signaling their state through smiling and crying, human infants prompt caregivers into action. Equivalent signals operate in other animals in which reproduction requires feeding, cleaning and warming of the young. Parents that paid close attention to the emotional signals from their offspring probably out-reproduced the indifferent ones, and this selective advantage applies at least to mammals and birds. (De Waal, 2017, p.503)

This process of long-term postnatal care is just one example of our societal need for empathy. There are more advantages to an empathetic society than just caring for our dependent young. Our species maintains forms of dependence on relationships and communication needs that require empathetic function.

Once the neural underpinnings of an empathic 'offspring care system' existed, they could serve outside of the rearing context and have a role in the wider social fabric. They could be activated by the perception of a distressed adult conspecific, such as in rodent consolation behaviour. For every species, the reach of empathy varies with its social organization, creating differences across solitary, pair-bonded, cooperatively hunting or group-living animals, not because the empathy mechanism works differently, but because species and their ecology place different demands on it. The fact that mammals retain distress vocalizations into adulthood hints at the continued survival value of care-inducing signals, such as those that prompt primates to carefully lick and clean the wounds of unrelated conspecifics. (De Waal, 2017, p.503)

Empathy serves an important role in our society and cannot be tossed aside without consequences. Empathetic impulses exist in many forms for many species and for humans are just as vital as our other survival instincts.

### **Adaptability and Empathy**

Our ability to empathize is important for many reasons. Glancing at topics of children's literature, we can see that empathy is perceived as an essential topic for children's learning. It's important enough to teach our children from their youngest years to cooperate, interact, and empathize with other living beings in a socially beneficial way. This could suggest that even though empathy is built into our response system, there is a process of learning that also needs to take place.

Each of us are born with something called mirror neurons which actually programs us to vicariously care about the other people's experience around us, and when we cultivate that side of us then we increase our capacity for

connection. When we diminish, or deaden that side of us, it can lead to disconnection, isolation, loneliness or even unethical or abusive behaviors. (Nova Science, 2005)

While there is danger of losing empathy, there are also many opportunities and possibilities to enhance empathy. As our understanding of empathy grows, so can our ability to access it.

I believe that developments from my research into empathy through a blend of somatic, neurological, psychological and physically embodied perspectives can benefit those whose empathetic function has dulled over time. What I have termed, Cognitive Somatic Empathy Enhancement exercises (CSEEs) aimed at enhancing empathy could work towards enhancing empathy in some. For those who were born with the ability to develop the neurological pathways for empathy but have since lost or dampened these pathways, the ability to experience empathy can be regained through targeted empathy enhancing therapies (Lewis, 2013) (Bergland, 2013).

These changes are made possible by the mutable nature of the nervous system described through the term, neuroplasticity. The brain, along with the rest of the nervous system, is a living organ that is continuously adapting to stimulus, allowing itself to rewire and create new patterns based on experiences. This flexibility is what allows us to progress, in any direction, in our thinking and actions. We are continually encountering new experiences and automatically allowing our reactions to those experiences to strengthen or alter our existing neural pathways (Costandi, 2016).

The adult brain is not only capable of changing, but it does so continuously throughout life, in response to everything we do and every experience we have. Nervous systems evolved to enable us to adapt to the environment and determine the best course of action in any given



situation, based on what has been learned from past experiences. This is the case not just for humans, but for all organisms that have a nervous system. That is to say, nervous systems evolved to change, and so neuroplasticity is an intrinsic and fundamental property of all nervous systems. (Costandi, 2016, p.2)

This ability to transform at a neurological level can make the strengthening of empathetic function possible for many people.

### **Absence and Empathy**

Studies have been conducted with psychopaths, those with non-functioning empathy neural pathways, who have been incarcerated including fMRI, functional magnetic resonance imaging. The fMRI scanned the brain's response to stimuli of imagining themselves in pain and others in pain. This data is helpful for the understanding of empathy and for the creation of therapeutic processes created to combat the repression of the empathetic function. "Honing in on neural networks needed to make people more empathetic may be the key to targeting psychopathic behavior and lower violent crime" (Bergland, 2013). When highly psychopathic individuals were asked to imagine pain to themselves their brain lit up in all the areas involved in empathy, the anterior insula, anterior midcingulate cortex, the somatosensory cortex and the right amygdala. When the psychopaths imagined pain in other people, those areas failed to activate and instead activated in the ventral striatum, an area included in the pleasure response.

These results suggest that the empathetic activation to oneself in pain could be used to trigger empathy for others. "Imagining oneself in pain or in distress may trigger a stronger affective reaction than imagining what another person would feel, and this could be used with some psychopaths in cognitive-behavior therapies as a kick-starting

technique” (Bergland, 2013). There is an impending need to help those experiencing non-functioning or less-functioning empathetic neural pathways to re-discover their empathetic function to help lower violence in mild to high rated psychopaths and limit the number of criminals imprisoned for the first time or as repeat offenders. The incidence of psychopaths in prisons is 23% and only 1% in the general population; many people are being imprisoned for a brain abnormality over which they may have no control. The empathetic function of the brain could be missing entirely, in which case it would not likely be affected by therapeutic CSEE; however, research has shown that in some people the empathetic function of the brain is repressed rather than missing, in which case therapy could have an effect (Lewis, 2013).

Some of the strategies I developed for my dancers were specifically targeted at physical actions and sensory experiences that were related to the areas of the brain that the empathetic neurological pathways include. Through the influences of my research into somatic theories and embodied cognition, my hope was that repetition of these exercises could strengthen the neurological pathways included in the cognitive function of empathy. I did not necessarily believe that these exercises alone could have the desired effect; however, my intent was to add somatic perspectives to the already existing discussion on empathy enhancing therapies. The creation of more methods of empathetic enhancement through an embodied perspective can possibly provide an alternate way of approaching the re-kindling of empathetic expression. I believed this would be possible through research on empathy, its neurological process and its social significance, experimenting with empathy-building exercises with my dancers during the movement research and choreographic process, developing specific strategies (CSEEs) for empathetic enhancement and creating a performance piece sharing influential features of what was learned throughout the research process.

## **Integration and Empathy**

There are a few more details that were significant to the project that will help in understanding the process and the result. There are three different aspects of empathy that have been defined to aid in effectively studying the function of empathy: affective empathy, cognitive empathy and compassionate empathy. Affective empathy “[r]efers to the sensations and feelings we get in response to others’ emotions.” Cognitive empathy “[r]efers to our ability to identify and understand other peoples’ emotions” (Ekman, n.d.). Compassionate Empathy refers to action made in response to empathetic impulses. When our cognitive and affective empathy responses are strong enough, they can lead to responsive helpful actions toward those one feels empathetic towards (Powell & Roberts, 2017). My end goal for enhancing empathy would be to create more compassionate empathy. Without the initial empathetic understanding, there can be no empathetic action.

There are multiple entry points for empathetic response, through direct observation, referred to as bottom-up, or through the consideration of another’s situation, referred to as top down. These references relate to the path they take in the brain. Top-down, cognitive empathy, is initiated by the imagining of someone else’s state. Bottom-up, affective empathy, is triggered by direct perception of someone else’s state. See the descriptive figure on the following page.

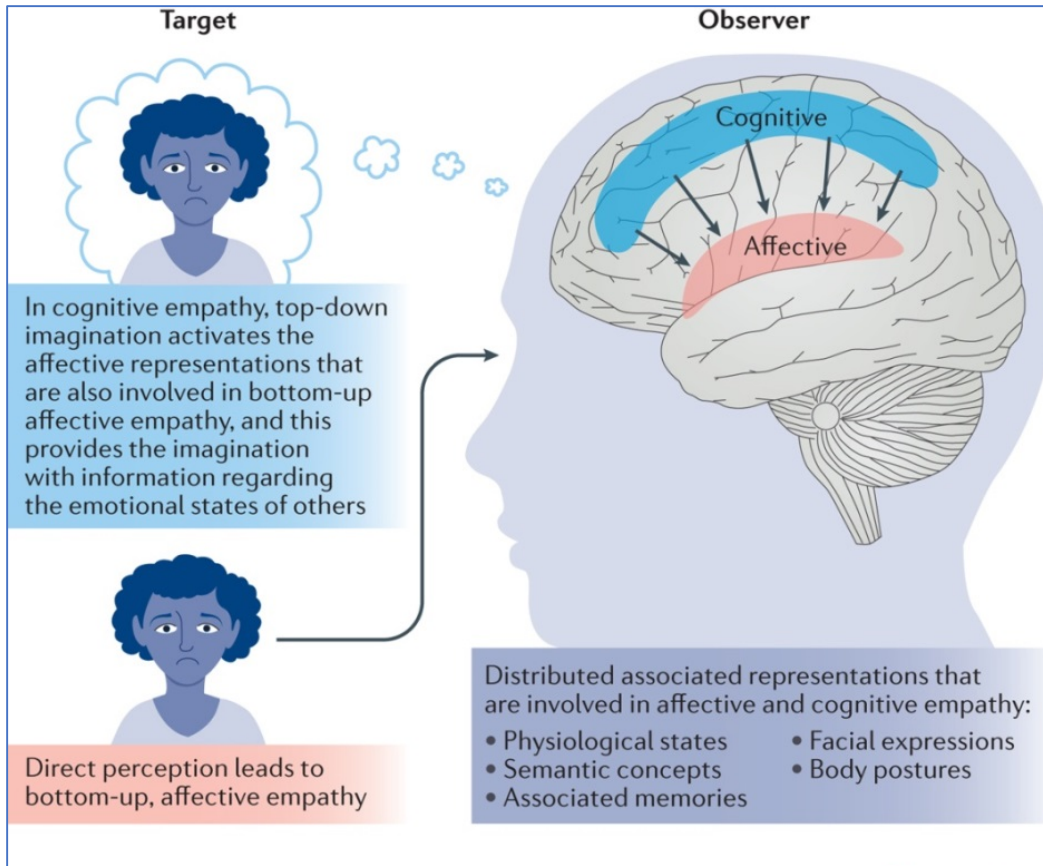


Figure 1. Top-down and bottom-up representations of cognitive and affective empathy (De Waal, 2017, p. 504).

While the distinction and separation of these three empathetic processes, cognitive, affective and compassionate empathy, are helpful to exploring empathy, in the end empathy is best understood by integrating all three.

It is sometimes useful to bifurcate empathy into affective and cognitive components, but this does not deny shared processes. Shared processing is required for both bottom-up and top-down forms of empathy because it is the distributed affective representation that imbues the percept with content and meaning, and this is needed for all forms of empathy. (De Waal, 2017, p.504)

Even beyond the necessary perspective of considering the entirety of the brain when exploring the neural function of empathy, considering the whole person is even more

imperative when looking at empathy in its entirety. The neural, emotional, and physical, aspects of the soma that contribute to our understanding of empathy in its full embodied experience will allow us access to the knowledge we need to provide the necessary support for individuals to give empathy, receive empathy, and co-create empathy.

Through my research, I came to create my own definition of empathy that I feel encompasses the complex process of co-creating empathy. My definition of empathy includes two phases. The first phase of empathy is the ability to sense and understand another's emotions or circumstance through their specific learned perspective by connecting them with our own related experiences. The second phase is the personal shift or change in one's own perception, with a possible call to action, that occurs once that perspective is obtained.

### **Performance and Empathy**

Though the results of this research could be applied specifically in a therapeutic realm, the intent at this time was to reach a larger audience through the performance of the concert dance, shiFT. It was my hope that the culminating performance would provide insight into the importance of moving forward in the world with an empathetic impulse. The stage performance was an important aspect of this project because it was an opportunity to invoke an appreciation for social empathy with the audience. This is important because while the ability to experience empathy does not guarantee any change in interaction with other living beings, such an ability is a necessary step for producing compassionate action. The movement exploration of these research concepts yielded invaluable insight into the study and creation of empathy and hopefully fulfilled my intention to create an avenue for people to understand empathy through a different medium, dance.

## **The Original Intent**

A wide range of empathetic intensity exists from person to person. These range from zero empathetic function to debilitating empathy. Empathy encompasses a broad range of forms and often functions differently depending on the person and their relative circumstances. I realized, that to approach this topic practically, I must first narrow my focus. The original purpose of this study was to learn about empathy's role in lived interactions and develop strategies for fostering an empathetic environment. I wanted to discover how an embodied approach to the study of empathy can contribute to the creation of empathy enhancing strategies. I began by focusing on the following four concepts: (1) how empathy factors into building relationships; (2) the effects a lack of empathetic function has on individuals and those in their circle of influence; (3) the broader moral contexts of the importance of empathy and; (4) how knowledge of the neurological processes involved in the function and non-function of empathy can contribute to realizing empathy. Each of these four concepts could be their own full research project. I entered the kinesthetic and choreographic research phase knowing that the experiences with my dancers would guide my research into a more specific and relevant focus. Considering that movement research would likely produce responses to inquiries in a way that theoretical research alone would not, I gave myself and my dancers license to organically find an area within the above four research concepts that was personally meaningful and informative.

I was prepared for specific areas of research to have more resonance with the group and therefore more study. Even so, I anticipated that the general ideas I was circling around would remain the focus of the performance piece. I assumed the concert dance would be focused on the neurological and physiological processes, the widespread effects of the implementation of compassionate action and the negative effects of the

disuse of empathy. From these assumptions, and before rehearsals began, I created a proposed performance outline that included sections that would feature these concepts: (1) The neural pathways linked to the function of empathy; (2) The process of choosing to empathize or not; (3) Glimpses in to the lived experiences of the dancers; (4) The method of realizing empathy and if that then leads to create active empathy; (5) The larger moral context of empathy. Originally, I envisioned that the performance structure would gradually zoom out from representing a microscopic view of the brain's neurological empathetic functions to end with the wider social and global contexts in which the function of empathy is so integral. About halfway through the choreographic process, the focus of my research and performance underwent a considerable shift which altered the performance content greatly. I will talk through what caused this transformation, as it was tremendously significant to the conclusions of my research.

### **Creative Process**

This section outlines the methodology I applied to the kinesthetic, creative, and choreographic process as well as the concepts I unearthed in my preliminary research that instigated these explorations. After concluding my preliminary theoretical research and initial self-investigations, I was ready to introduce these concepts to my dancers and begin our kinesthetic investigation. The first step of this exploration involved creating an empathetic atmosphere between the dancers as a group in rehearsals. I wanted them to experience empathy as they were exploring its nuances. I planned to include a section in the concert on the process of realizing empathy and wanted the experience of finding empathy in the group to also generate the material itself. This way, movement in the performance would come from the actual process of realizing empathy instead of a theoretical reflection. This method was inspired by Seung Chan (Slim) Lim, a designer and author with a focus on empathy and the creative process. He explains,

The process it takes to empathize with another person, mirrors the creative process. ...so what happens as we go through the creative process is that we don't just create things, we create new meaning and value from something we perceived little to no value or meaning previously. And in that process, we learn a new choice, a new choice with which to not only see others, but also ourselves, to be honest with ourselves. (2014)

Recognizing meaning in another person's experiences and actions parallels the recognition of meaning in dance that is crafted through the organization of movement to reflect and create meaning. The process of calling attention to empathetic connection and developing a group mind worked hand in hand with the movement phrase invention for the concert section of realizing empathy. The creative tasks allowed the dancers to experience the building of connective relationships while focusing on creative exploration.

### **Empathy Building Exercises**

There was a range of familiarity established between each of the dancers because of their shared experience at ASU. Some were only recognizable to each other from passing in the hallways, some had been friends for years, and two of the dancers were in a committed relationship with each other. My intent was to create an empathetic atmosphere that surrounded all the dancers evenly to establish a space that encouraged exploration, risk, and trust. We began with experiencing the (CSEE's) I had created based on my research into the neurological function of empathy, the theory of embodied cognition, and aspects of interpersonal relationships related to the fulfillment of empathy; supporting the idea that practicing the physicality of empathetic experiences would heighten the neurological empathetic process. There was a gradual build in the intimacy of the exercises. First, we started in smaller groups with possibly challenging



connections separated out (e.g. eye contact but no physical touch). Then, we progressed to small and large group exercises that explored various aspects of intimacy concurrently (e.g. frontal physical contact with eye contact included). The exercises involved tactile, visual, and auditory experiences with another person or group of people. Following each exercise, I asked my dancers to reflect on the experience both through their own perspective and from the perceived perspective of their partner or group. These reflections were conducted on a variety of mediums, including writings, drawings, discussions, and actions. For example, sometimes a dancer would be asked to create a movement phrase or drawing, or find something to give to their partner that expressed what they just learned about them.

One invaluable CSEE included a three-stage process involving two partners. The first stage of the experience incorporated active listening in which one partner would talk while the other listened and provided them only physical support. Then followed a phase of “body mapping;” meaning one person would lay on the floor and their partner would provide comfortable and slowly shifting body weight on top of their body. Afterwards they shared eye contact with no physical connection or verbal dialogue for five minutes. The dancers then chose a song that they ‘gifted’ to their partner, one that they felt represented their experience with them over the course of the three stages. Similar exercises like this one were completed with reflective drawings, writings and movement generation in response to the experience. The reflection prompts were designed to instigate consideration of the drawer’s experience as well as their partner’s. When the experience ended and they were asked to draw, write, or create movement individually, my intent was to encourage their thoughts to remain on their partner rather than exclusively on themselves.

## **Creating a Group Mind**

The nature of the exercises I shared with my dancers reflected the importance I placed on nurturing a group mind. I felt that in this case, full exploration into oneself and one's interpersonal relationships would be best cultivated once a group mind had been established. I aimed to nurture a group mind for my dancers that was accepting of all the individual minds as well as communally engrossed in exploring empathy together. This would allow the dancers to have a mutually supported focus while maintaining the validity of each of their own experiences and perceptions. Their group mind could be described as a galaxy of individual stars with the laws of space dynamically supporting the whole system. I believed the group mind to be important because it fosters an environment of support and understanding that would allow for the dancers to take risk in the personal exploration and sharing of sensitive material relating to our group exploration of empathy.

One of the challenges I faced was not having my entire group of dancers through the first three months of the choreographic process. Since I began rehearsals in the summer months and was working primarily with ASU students, many of them traveled over the summer and came to rehearsals sporadically as they were in town. Out of the ten dancers involved in the work, I would have anywhere from three to seven at each rehearsal. This uncovered an extra challenge of creating a group mind with an ever-changing group. In addressing this challenge, I decided to keep the experiences 'in house.' Those who were present in the space did the exercises and created material. The nature of the empathy building exercises as well as the dancers' pre-established familiarity revealed quick and successful releases of constraint with each other. This caused the exercises to be equally connective for everybody, no matter the timing they joined the rehearsals. I structured the empathy building exercises in time frames that

could be incorporated into any rehearsal, allowing all the dancers to be able to experience them with the rest of the group when they were present.

### **Joining the Fray**

I participated in the CSEE's alongside my dancers whenever it was possible. I wanted to share in the experience so I could guide the dancers in a way that was responsive to the results of the exercises. After switching back and forth between director and participant, I realized that I wanted to experience the entire creative process equally beside them and share in the responsibility of the performance as well. I didn't want to only watch them perform the final piece, but experience each moment with them, so I decided to join the cast as a performer. I was interested in taking on the challenge of maintaining the equality of the group dynamic while jumping into the performance and retaining my role as the director.

### **Worms**

After creating an empathetic environment with my dancers, we continued our exploration of empathy through the human need to search out connections from the very beginning of life. Those connections begin with the social dependency of postnatal care and continue with a seemingly innate pursuance of social interactions throughout life. Over a lifetime, we experience innumerable interpersonal interactions, each contributing to our accumulated nature and disposition. At the beginning of our lives, as we venture out of the womb and meet others, we are at first surrounded by innocent neutrality unimpeded by negative interpersonal experiences. As we begin to form our perceptions of relationships, our experiences and connections create changes in our neural pathways depending on our responses to our interactions. Empathy is thus strengthened or weakened as we proceed forward.

The movement inspiration for this section came in a surprising form: worms. Their inhuman movement qualities paired with their ability to move efficiently through the earth with no limbs, and find each other with no formed ears or eyes paralleled my interpretation of this beginning phase of social interaction. We discussed the characteristics of a worm's life before embodying them so we could understand how they function and how they search out each other. We tried to connect with their way of life as well as their physical movement. Their physical movement is a product of their intentions, so in an effort to understand their intentions, we embodied their movement through an empathetic perspective. Some of the characteristics of worms that were especially helpful in creating the group's movement dynamics included the fact that worms locomote both backwards and forwards and they breathe through their skin as they do not have lungs or specialized respiratory organs. Each earthworm is both male and female and produces both eggs and sperm. While they do not have ears or eyes, they are more light sensitive on one end of their body. Each segment of an earthworm's body is covered with bristles, not unlike hair, that help them wriggle through dirt, giving them the ability to dig 6 feet down into the earth. These same bristles are what allow worms to sense touch (Beans, 2014) (Navajo Code, 2015). I challenged the dancers to embody these creatures by connecting to each other only through physical sensation with no direct focus or outreaching of their arms or legs. Initially, they found it difficult climbing on top of and over each other without the use of any of their limbs with the single exception of their heads. Many were hesitant at first, and it took patience to get to a level of comfort in the body of a worm. Once familiar with this exercise, I gave the dancers the option to use mid-level movement and eventually their limbs. After introducing these options, one of the dancers asked the question, "after we go into the mid-level, are we still worms?" This question prompted my observations in a journal entry from that day,

August, 7, 2017

It did seem like the creatures were evolving once the limbs and mid-level were an option. They became more analytic, they would look directly at a situation, assess it, and then make their choice how to interact or to avoid. When they were worms, interactions seemed more indirect. Peripheries or just sensing each other was the initiator of the relationship instead of direct focus. It matches with the progression of relationships and our ability and/or motivation to look at someone and 'choose' to connect with them or not. There is also sometimes a choice whether to empathize or not. We often pass people on the street who may need empathy but we avoid eye contact and ignore the situation. By avoiding eye contact, we ignore not only the situation, but also the responsibility of conscious choice, whether to empathize and react or not.

The dancers' physical movement started to evolve alongside their interpersonal interactions. They were making defined decisions to either interact or not to interact with a concentrated use of focus that changed the dynamics of the group relationship. The introduction of this more complex and full-bodied movement paralleled the more complex attributes of building social connections and experiencing empathy.

### **Gesture Conversation**

After investigating the initial urges for seeking out interactions and the foundation of creating relationships, my next step was to explore specific social interactions in greater detail. To explore the complicated social interactions that yield empathetic impulses, I implemented an improvisational game for the dancers that mirrored verbal communication. We called it the 'gesture conversation.' The gesture conversation involved an improvised exploration of connection dynamics and

communication in real time. The improvisation structure developed over time and eventually included a variety of parameters for the dancers to improvise with. I instigated the game with a basic improvisational prompt: use nonverbal gestures to directly communicate with your fellow dancers while maintaining eye contact. These gestures included employing punctuation, such as commas, periods, exclamation points, or question marks, to enhance the dynamics of the conversation. Something interesting was that the dancers needed regular reminders to direct their focus towards the other dancers and make eye contact during their conversations. Even after all our sessions with eye contact as a main activity and paired with other exercises, it was again a struggle to maintain that intimacy during this new experience. After some practice, the dancers achieved a level of comfort that allowed them to non-verbally communicate as a connected group.

Once the foundation of the game was set, I led the dancers to generate a bank of eight different gestures created from different stimuli related to empathy concepts. These gestures added another dimension to the nonverbal conversation. Four gestures were created by pairing 'emotional' words drawn from the earlier body mapping experience, with body parts from sensate observations of both the dancer's own body and their partners body. Two gestures were created by movements that physically moved other bodies in the space with the intention of changing another's mind. Two more were from our group discussion on who or what we feel most empathetic towards and how that creates a desire to act. These last two gestures were drawn from the desire for compassionate action in response to the empathy experience; they were larger, more disruptive and causal gestures. The dancers then used only these gestures to communicate and interact with each other. This was maintained as a freeform experience that had extended 'effect' parameters. We later added a rule that when a

dancer was touched by another dancer, either purposefully or accidentally, they had to freeze in whatever physical shape they were in. They then had to wait to be unfrozen by someone picking them up and moving them to a different place on stage where their nonverbal conversation could resume. While this group conversation took place, two of the dancers were placing 'frozen' dancers at the very front of the stage, only a foot from where the closest row of audience usually sits during a show. Once the dancers were placed in this downstage line, they had to spend their time communicating their gestures to the abyss in front of them while the rest of the group conversation continued behind them upstage. More and more dancers slowly joined them in a long line spanning the length of the stage until the whole group had joined the line. This downstage line had an unexpected effect on the dancers that ended up being the catalyst that changed the focus of the piece, and my research.

### **The Neurological Process**

My approach to exploring empathy's neurological pathways was very different from the rest of my investigations. It is the least tangible characteristic of the empathetic process. While the physical and emotional properties of empathy can be seen and felt, the meta exploration of our brain is more incorporeal and abstract. The neurological process of empathy lies behind the scenes less visible, but no less important than its emotional and physical counterparts. I wanted to mirror this incorporeal and abstract process by examining and displaying it in a similarly intangible way. I hoped to draw attention to the illusive neurological processes of the brain and use the association of bodies to demonstrate the information. During the on-stage performance, the dancers were to portray the entire timeline of tangible empathetic progression in their physical bodies by their choreographed interactions with the other dancers. However, I also needed a way to demonstrate the simultaneous neurological process of empathy. I

wanted to display this using a different medium so that the bodies, representing the more corporeal aspects of empathy, could remain grounded in the empathetic relationships being built on stage. This prompted me to include another medium in my choreographic work. I decided the artistic expression of the neurological pathways would transpire as a dance film played alongside the physical bodies in the final stage performance.

My first creative challenge was to design an environment for the film. I wanted the set to be an unrecognizable form so that viewers could see the dancers existing in an ethereal like plane. This would juxtapose and allow the audience to distinguish between the film concept and the human interactions displayed on stage. Based on images and videos of minds experiencing a variety of empathetic processes, I settled on a set created by a maze of hanging tulle and string lights against a black background. These would allude to familiar representations of a brain's neurons and organic matter. There were many specific requirements for the set that made finding the perfect location difficult. The materials were hung in a hodge-podge pattern in a 12' by 12' square leaving space for bodies and movement to take place inside the structure. The room needed a black background that circled around the dancers, instead of a flat background, so that the camera could revolve around and through the set instead of having to remain fixed with a clear front. I also had to find a location with a ceiling that could accommodate the hanging of the tulle and lights in random fashion through the set. Another issue was finding the right overhead lighting that would enhance the bodies and the draping tulle in the film without overpowering the string lights. This combination was difficult to come by and, once I found a location, I ended up needing to find some creative work arounds for the filming to be successful. The most complex work around was coming up with the method for hanging the lights and the tulle. I created an eclectic grid system of



clothesline rope that had to be individually fastened to the bars on the ceiling with the tulle and lights hanging or tied onto each strand; allowing for the set to be created and adjusted in the space to more accurately fit my original vision of bodies inside the brain.



Figure 2. Yingzi Liang, Alan Witt and Sharon McCaman building the set for GREY MATTER.

The content of the film focused on two neurological processes as stimulus for the dancer's movement. The first being, the pathway that the empathetic function takes in the brain through the activation of the anterior insula, anterior midcingulate cortex, the somatosensory cortex and the right amygdala (Bergland, 2013). The second, mirror neurons, which exist as two clumps of cells on opposite ends of the brain. These mirror neurons light up both when one does an action or when watching somebody else do an action and then send messages to the emotional center of the brain, allowing people to connect and empathize. These neurological functions were portrayed through movement that roamed through the set in specific pathways, beginning isolated in the scene and

slowly growing to connect with other dancers and eventually the whole group. The film, titled “GREY MATTER” was a bricolage of abstracted movement including improvisational explorations of empathetic features and experiences, and moments of clear and focused human connection created in collaboration with my dancers and two videographers, Sharon McCaman and Yingzi Liang. The blurred and translucent perspective of our neural actions during real time experiences was emphasized through the filming of bodies amid the tulle and lights. The timeline of “GREY MATTER” mirrored the timeline ‘shiFT’ would take on stage.



Figure 3. GREY MATTER v.2, Cody Pickens and cast



Figure 4. GREY MATTER v.1, Casey Charlton and Ruby Morales

### **An Illuminating Experience**

Throughout the creative process, I was having regular discussions with the dancers about the concepts we were exploring as well as their own experiences with empathy. We had many meaningful conversations about the role of empathy in their lives. During one particularly influential discussion, I provided the dancers with variously colored tissue paper to play with while we talked. This acted as a subconscious symbol of vulnerability, a comfort action when sharing opinions and truths, and a metaphor as they happened to create beautiful objects from the fragile material. There were many points at which the dancers found common ground, experiences they had all shared at some point. Many presented feelings of empathy toward those who are oppressed or mistreated. Animals were a great source of connection for the group, with shared stories of heartbreaking instances where they sacrificed their time or even their safety to help or give comfort to an animal who needed them. A few had stories of

holding animals they encountered on the street who had been hit by cars. Without having any personal relationship to the animal, they held and consoled the animal until its passing. This was an experience I also had myself and was uplifted to hear that others did the same. It appears, for the dancers in this group, an empathetic experience was simpler and more immediate with animals than it was with many humans. The discussion of empathy with people they were both familiar with and strangers to, became increasingly complex. Personal factors seemed to have more of an influence on unconditional empathy. One of the dancers even brought up concerns that she was not sure that she was empathetic with many people at all, even her own partner.

Up to this point in the research process, I had uncovered more questions about empathy than answers. I was stuck. I was not sure where we were going next in the choreography. It no longer felt right to move forward with my original performance structure, something was off. I kept wondering, if empathy was something everyone agreed was essential to a full and blissful life, then why was it neglected in even the most willing people? If empathy is just a matter of choice, then why would people not choose it? Wouldn't we all be happier if everyone cared for everyone?

The answer to these questions came after the first full run through of all the material we had created so far. The dancers physicalized the initial searching out of connection through the worm section, the slow evolution of complex interpersonal relationships with varying effects, and then the improvisational gesture conversation and subsequent forming of the downstage line. When I stopped the music, and gathered everyone around for a discussion, there was a quiet contemplative energy in the room that had not been there before. One of the dancers shared that they were surprised because they found themselves feeling very vulnerable in the downstage line. This was a feeling that had not been anticipated during the process. The others agreed, they felt as

though they were isolated from the rest of the group after slowly building a trusted connection through the piece and that isolation created a vulnerable effect. Their reactions to that vulnerability varied from wanting to rejoin the group, to wanting to isolate themselves even further in different ways. This conversation sent me down another research rabbit hole, leading me to discover the essential role of vulnerability in empathy. My own response to the introduction of vulnerability into the work is depicted in my journal entry reflecting on that night.

September 10, 2017

After having the experience of last night's rehearsal and the accidental introduction of vulnerability into the ending of the gesture conversation, I am finding all of this info on vulnerability's role in empathy. I wanted to take myself out of the dance for the first time last night, and if I'm being honest with myself, it's only because of this introduction of vulnerability for the dancers. They were not just portraying vulnerability, they were actually feeling very vulnerable. This is an extremely uncomfortable place for me and I try very hard to avoid it. I had been fighting with the vulnerability of choreographing for a while now. Dancing in my own piece before made me feel sick with nervousness. I believe it was because of the 'double' vulnerability of choreographing a piece and also performing in it. And the content of that duet was not inherently vulnerable, as this piece is now. I am battling with myself a bit about this but I think I should do it, feeling nervous and vulnerable is not a good enough reason not to do something good. In fact, it's more of a reason to participate as Brene Brown talks about vulnerability being a necessary 'first step' to more.

My own resistance to experiencing vulnerability and my reflex to find a way to disconnect from the piece by not performing in it gave me invaluable insight into the danger of avoiding vulnerability. I loved being able to perform shiFT alongside the dancers I created it with. I would have missed the opportunity to do something I really wanted to do just because it felt like maybe my discomfort was not a price I was willing to pay for that experience. I figured if I was trying to instigate positive change in other people, I needed to allow the same thing to happen for myself. Driven by the question “how does vulnerability relate to empathy?” I came across the professor, social worker, and public speaker, Brene Brown, who specializes in vulnerability, shame, and empathy.

Vulnerability isn't good or bad. It's not what we call a dark emotion, nor is it always a light, positive experience. Vulnerability is the core of all emotions and feelings. To feel is to be vulnerable. To believe vulnerability is weakness is to believe that feeling is weakness. To foreclose on our emotional life out of a fear that the costs will be too high is to walk away from the very thing that gives purpose and meaning to living. (Brown, 2012)

Vulnerability is not a negative emotion as many likely suppose. It is actually a gateway to empathy that is often closed because of its sometimes unpleasant effects. There are different levels of vulnerability avoidance techniques that are imprinted in our neural pathways, caused by occurrences ranging from small embarrassments to traumatic experiences. The protection against these negative interpersonal interactions also contributes to the deadening of empathetic ability. The more we repress empathetic function, the less it will be readily available when it is needed for positive social connections. The conclusion of ‘shiFT’ then adapted to make room for a kinesthetic exploration of vulnerability's role in empathy.

## **Performance and Vulnerability**

For the first time in the choreographic structure, I made the choice to split the dancers into three small groups. Each group took on a common reaction to experiences that instigate vulnerable responses. The first trio exhibited a scenario involving a catatonic reaction to vulnerability. This movement drew from the desperate ignorance called on to avoid empathizing with the unpleasant or possibly horrific experiences of others, consciously or subconsciously, to protect oneself from experiencing even a small part of their torment. While this defense mechanism can save oneself from those distressing experiences, it is not something that can always be turned on and off when it is useful. When those neural networks of avoidance are in place, they will apply to many experiences, including those that would in time be positive. Empathizing with another person's negative experience can bring one to compassionate empathy, where they could enact change to help the other's suffering. This openness to vulnerability and empathy can also lead to meaningful relationships that otherwise cannot be fully formed. "Our capacity for wholeheartedness can never be greater than our willingness to be brokenhearted" (Brown, 2012). Our ability to allow seemingly negative emotions into our lives are, at the same time, making room for the positive emotions we share with others.

The second group, a quartet, demonstrated the dichotomous relationship between sympathy and empathy. "Sympathy gets in the way of empathy, it's also how we respond when we don't want to be vulnerable to someone else's struggle" (Brown, 2012). Sympathy acts as a buffer between us and empathetic connection. It is often considered a stepping stone to empathy, but it instead causes a blockage to connection. Sympathy can feel like a valid way of addressing another's discomfort, but as it does not require vulnerability, it is a detached way to associate with other people that draws a perimeter around true connection. Empathy requires relating to the suffering of another, sympathy

does not. Brene Brown discusses the vulnerability of connecting with someone else's pain, because one must first connect with something inside themselves that understands and relates to that feeling. Empathy involves calling up painful memories to find understanding for someone else's. "Empathy fuels connection, sympathy drives disconnection" (Brown, 2012). Connecting to another requires the vulnerable act of relating one's own painful experience to somebody else's painful experience.

The final trio showed the relatable concept of reacting to vulnerability with blame. I was surprised by the inclusion of blame as it was not an emotion that I readily recognized as an obstruction to empathy. I now realize I had been filing blame under 'justified' reactions to negative social interactions. Subconsciously I wasn't making as grand an effort to empathize with someone during a challenging social interaction if it seemed justifiable to blame them for the unpleasantness. Whether blame is 'justified' or not, it still impedes the empathetic process. It is a comfortable emotion to carry around because, "It gives us some semblance of control. Blame is simply the discharging of discomfort and pain. It has an inverse relationship with accountability. Accountability, by definition, is a vulnerable process" (Brown, 2012). Accepting accountability in interactions can be uncomfortable, placing blame is the easier route. While it may be easier in the moment, it can affect one's ability to co-create empathy. Rather than looking for connection, blame directs us to look for fault, causing us to disassociate. Blame is a difficult emotion to overcome because of its corrosive nature. It actively pushes people away and can create an atmosphere of isolation for everyone involved. Fortunately, by dispelling blame and allowing interactions to be led by accountability and vulnerability, an empathetic connection can be formed.

Through each of the explorations of the above three instances of vulnerability, there were characteristics of the nuances of vulnerability and empathy that were



discovered through our kinesthetic and choreographic research. We drew from personal experience to create the most relevant movement dynamics to denote true reactions to vulnerability. From there, the movement underwent a series of editing and re-shaping of minute physical characteristics that meandered from the organic interpretation of these complex relationships. This was a matter of numberless miniscule postural and focus based changes made to foster an accurate portrayal of our own experiences of vulnerability relating to empathetic experiences. With new knowledge gained from the kinesthetic research of the role of vulnerability in either disrupting or making room for empathy, my dancers and I concluded the creative research phase of production and moved to finalize our performance structure.

### **Choreographic Challenges**

The process of making edits to the material in order to more accurately portray the true nature of empathy helped us all to clarify and reflect on our own empathetic experiences. This effect calls me back to my original research question: How can dance movement research contribute to the development of strategies for fostering an empathetic environment. The embodied interpretation of the theoretical and scientific concepts of empathy and the physical adjustments to the choreographic material revealed new knowledge of the full processes and roles empathy takes in the building and maintaining of relationships. The minute adjustments to the angle of the bodies or the quality and placement of touch in relation to another changed the perception of the demonstrated relationships.

Throughout the creative process, I had been worried about editing out people's experiences as they were portrayed in the movement. Thinking back, I would have edited sooner to better serve the choreographic structure. The process of editing can be viewed as another form of shaping the group mind, shaping the movement contributions into

something that works together as a whole. Since ultimately this process was for creating a final performance, the editing of the material is necessary, if these creative exercises were set up in a process of pure self-exploration there would be no need to edit the movement contributions. While I did allow myself to edit when necessary, I sometimes held back in fear of chopping up the dancers' inputs.

It was challenging to find ways to organize the performance space with all ten dancers on the stage the whole time. After deciding to keep everyone on stage for the entire show, I spent a lot of time trying to shape the space in a way that was digestible for the audience and included the active participation of the dancers the entire time. This technique required constant kinesthetic awareness from the dancers as they had to be aware of all the moving parts of the choreography at all times. I also relied heavily on movement cues over music cues so the timing could remain organic during the performance, adding to the need for complex kinesthetic awareness. Thirty-five minutes on stage is a long time to maintain such an intensive group awareness. Through the many group empathy and awareness building exercises, the dancers were able to maintain the fullness of their own movement while also acknowledging the group as a fluid organism on the stage.

### **Concluding the Creative Process**

While the performance outline was clearly sectioned out into separate concepts, the flow of the concert did not explicitly distinguish between them. Each experience on stage built progressively culminating in a final thought that I am only loosely terming a conclusion. It was a conclusion for this concert piece, but not a conclusion to my research. Each dancer remained on stage during the whole piece and embodied the entire concept of realizing empathy from start to finish. This decision was made so that the dancers could experience an abstract kinesthetic version of creating empathy in each

performance. My intention was two-fold. To instill and encourage the dancers' own pursuit of empathy in their lives and to provide the audience with a comprehensive relationship with the dancers as they watched them take their long journey through the piece. While the dance begins and ends with the entire cast, the roles were set so that the performers who joined rehearsals later would also join the piece later. This allowed the performance to mirror the formation of the group mind in rehearsals, with each dancer joining with separate but equally supportive roles.

### **The Final Product**

“shiFT” embodied movement anchored in theoretical, kinesthetic, and choreographic research of empathy experienced over a year's time for both the pre-show and theatre performance. I will summarize the overall structure to provide context and will provide details on the visual conclusions produced by the creative process.

#### **Pre-Show**

As the audience entered the theater doors, their first involvement with the performance was through a pre-show installation. I had not intended to have a pre-show to shiFT, it's formation came as a surprise for me after completing the film “GREY MATTER.” While the content of the film stayed true to my original intent, abstractly signifying the neurological pathways empathy takes in the brain, its placement in the concert was not as easily decided and ultimately changed just two weeks before opening night. Originally, I intended to project the first half of Grey Matter, “Grey Matter v.1,” over the background of the stage during the beginning section of the performance piece. The second half of Grey Matter, “Grey Matter v.2” would project in the same fashion over the conclusion section, referring to the unseen cognitive function the dancers were experiencing as they took their journey through realizing empathy.

The first time I saw the video projected above the movement on stage was during my final showing with my committee. I did not anticipate how the film would take away from the physicality of the dancers. I had hoped it would play a supportive role to the movement taking place on stage, but the relationship created between audience and performers was disrupted by the 2-dimensional, flat representation of their experience. The performance of the dancers through the piece ended up creating a kinesthetic connection with the audience that was unsettled with the inclusion of the ethereal and seemingly calm depiction of their journey through the film. When seeing it, I felt uneasy, but with the impending concert and my own attachment to the concept behind the film, I was torn. Both empathetic concepts, the neurological and physiological, were interdependent and integral to portraying empathy. Yet placed side by side in this way, the simultaneous portrayal of the video and live performance detracted, rather than added, to the experience. I had worked hard on this video but, for a moment, was tempted to remove it from the concert entirely. Instead, a creative solution was found. I concluded to make space for it as a pre-show installation. It could still exist as it was intended, as a support, foreshadowing the upcoming physical exploration of empathy, while being projected in a way that also supported the aesthetic of the film itself. This aspect of the concert was important to me because it was the one piece that was not presented through physical bodies in the space itself.

In a rectangular lobby, just inside the entrance to the theater, hung four fabric walls, creating walkways for people to travel through. The fabric walls consisted of large industrial white plastic with various layers of white tulle draping over them. The walls were about 15 feet across and 12 feet tall. More than 500 yards of tulle was used to give the walls a “scrunchy” layered texture. On these walls displayed the dance film “Grey Matter v.1 & v.2,” but with some aesthetic alterations. I overlaid ethereal filters on the

final videos, distorting the clarity of the bodies even further. Each screen housed either v.1 or v.2 but with a different filter creating a varied effect for the viewer. The choice to project the films on more tulle and plastic, creating an almost translucent image, emphasized the abstract relationship I connected with the neurological process of empathy. Each fabric wall conveyed changing levels of transparency into the complex cognitive action of empathy in the brain.



Figure 5. GREY MATTER before the filter, Rebecca Witt and Casey Charlton



Figure 6. GREY MATTER with added filter, Rebecca Witt and Casey Charlton



Figure 7. GREY MATTER lobby installation, three of four screens shown

### **On Stage**

With a delicate and abstracted suggestion of human connection in the audience's mind, they entered the theatre for the performance of 'shiFT.' The curtains opened and all ten dancers were on stage, laying scattered through the space with heads pointed towards the center and the other heads. The performers began in a blank state with the initial empathetic reflex instigating them to search out connections innocently. They took a slow wriggling journey towards the other wriggling bodies in the space with faces focused on the floor. The eyes were not what are drawing them to each other, it was the sensation of presence, of other physical bodies and the reflex to search out and connect. They slowly but assuredly met and amalgamated into one shifting mass of bodies.

After the initial exploration of connection, the dancers began to experience the realizing of empathy. Their movement highlighted diverse interpersonal experiences

creating alterations in their neural pathways affecting their responses to those interactions. Demonstrating how their ability to empathize was both strengthened in some ways and weakened in others as they progressed forward. The movement drew from the many empathy-enhancing exercises we experienced during the forming of the group relationship and were then layered with each other bit by bit. Each individual movement was contributed by a dancer who had generated it from their experience with another dancer or with the group. No movement was created by only one perception or opinion, it was always mixed with another's somehow. These movement phrases were then constructed in the form of duets; restructured in ways that had the dancers constantly shifting back and forth between different relationships utilizing fluctuating spatial tensions to emphasize the dynamics of the forming relationships. This melding of dancers and movement ensured that all the movements in this section included experiences and inspiration from every dancer in one way or another. I was drawn to this idea of generating material because I liked the idea that in one phrase of movement, the dancers were embodying and revealing something from everyone. This highly structured section of the performance merged into the gesture conversation section.

The gesture conversation improvisation involved the exploration of the dynamics of connection and communication that were experienced in rehearsal replicated in real time during the performance. The decision to keep this section improvisational in the performance was made to preserve the same level of spontaneous communication and interpersonal effects. The parameters were maintained to recreate the building of the downstage line of dancers as well as the corresponding feeling of vulnerability. This structure illuminated the effect that taking on other's pain and experiencing true vulnerability can seem too big a price to pay for empathetic connection; causing empathy to slowly and unnoticeably deaden over time. The dancers found themselves in an

isolated state and began to notice the damage that distance caused for themselves and those around them. This consequently motivated the following small group sections of interactive responses to the complex role of vulnerability in empathy. Through those interactions, the dancers eventually find a way to allow vulnerability back into their patterns by helping each other to directly address barricades to vulnerability. From there they are again able to co-create empathy together.

The conclusion of “shiFT” was generated unexpectedly, during the last section of the piece, while the three small groups performed their concentrated vulnerability response pieces. All the performers who were not dancing remained on stage, sitting in varied casual architectures, observing the others physicalize their concepts. Even though the ‘architectural’ dancers were not exploring the concepts in the same way the other dancers were, they were actively observing and listening empathetically to their experience. I initially thought the group needed to dance together one last time as a final conclusion to the long journey we took through the piece. Instead the conclusion came after the final group finished their dance and everyone shifted their gaze to meet another’s on stage. The dancers did not have to physically move together spatially at all. The connection was already there in the shared empathetic experience of communicating and listening all through movement and observation. The conclusion was not any one emotion, joy, sadness, relief, it was instead a feeling of connection. “shiFT” resolved in a connected state while maintaining and emphasizing the individual experience of each of the dancers. Connecting to others through empathy makes us somehow individually whole, not free from discomfort, but certainly whole.





Figure 8. Corrosive blame in vulnerability trio with architectural observers. In the final moments of the performance, “shiFT.”

### **Analysis**

#### **Was it a success?**

Was shiFT a success? In the ways that are most important to me, yes, it was a success. I wanted the continued embodiment of an abstracted process of realizing empathy to have an emotional effect on the dancers, contributing to their own pursuit of empathy. This effect is different for everyone and can be difficult to quantify, but our group discussions as well as my one-on-one conversations revealed that there was an understanding of empathy occurring for the dancers, one that was creating meaning for them individually.

#### **Integrated Success**

Taking on the role of performer alongside, choreographer and director of “shiFT” and “GREY MATTER” had its benefits and challenges. Undergoing the creative process, rehearsals, and performances with my dancers on top of my other responsibilities was an invaluable albeit exhausting experience. I found it difficult to fully immerse myself into

the piece as we rehearsed it. The need to watch over the group and continuously problem-solve choreographic issues when necessary, kept me from existing wholly in the moment. I knew the dancers were more than capable of problem solving on their own, but not until dress rehearsal was I able to finally let go of control and experience the dance as a performer and not a director. It was a freeing experience and well the worth the effort.

The benefits of joining my dancers in the performance far outweigh the challenges. As I reflect, I keep remembering the moments right before the curtain opened each performance night. Laying on stage with all the dancers and watching everyone's heads pop up randomly to give each other a smile, words of encouragement or a silly face or joke before we were visible to the audience. It was the first time I had ever entered a performance without any nerves or anxiety. I had been in countless performances in different venues and always felt sick with nerves beforehand. At the time, I didn't understand why this experience was different. Now reflecting, I realize it was because the show felt like a success before it even began. For me, success was not measured in the same way it usually was, as the near-perfect implementation of choreography. Instead it was in the connection that I felt between myself and the dancers in those scary pre-curtain moments. Knowing we had done our best to sincerely investigate empathy and had created a beautiful group dynamic in the process. Now we just had to share our experiences with the audience.

### **Audience Success**

I hoped the audience would also gain something from the performance. While my focus was most often directed at creating empathy for the dancers, the audience was also a huge consideration when constructing the final performance structure. I created shiFT with the theory that if the creative process and the choreographic research truly followed

the theoretical research and the contributions from the dancers' life experiences, the performance would exemplify those concepts to the audience. The feedback I received from audience members on their perception of the content of shiFT varied, however there was always a common note of the perceived importance of relationships and mutual support. The notion of empathy was clear for many and raised questions of the specific inspirations for the movement. One audience member shared how she cried when watching the ending trio because she felt like she had experienced that type of relationship before. She couldn't put into words the specifics of what reminded her of that previous relationship, but had connected to one of the dancers on a kinesthetic level. Even though the content that build shiFT was not explicitly shared with the audience, the piece was an abstracted representation of the tumultuous experience of empathy and that feeling still permeated. The abstraction itself may have helped to reach more audience members by creating more access points for them to reach the heart of the piece.

### **Personal Success**

My own personal growth feels like a huge success to me, as a choreographer and as a human being. Firstly, as a choreographer; the many creative challenges caused me to learn how to quickly analyze an issue and build solutions confidently. I practiced collaboration and the implementation of many voices and ideas into a communally constructed ending product. I learned to trust my artistic voice a little bit more. Trusting my own vision is something I have grappled with previously and feel like I have made huge strides in this area.

As a human being; throughout the implementation of this project, my understanding of the complex nature of empathy has grown significantly. I can more easily employ an empathetic lens by analyzing if I am facing any road blocks to

vulnerability and therefore, empathy. Every time I actively consider a situation for my ability to empathize, it gets easier for me to quickly empathize with other people. It has made my perception of other's experiences even more complicated, something I was worried about considering my already sensitive reactions to others' misfortunes. This worry is overshadowed by the clear positive results of empathy. Many interactions I may have brushed aside, I now spend substantial more time and effort considering the situation. The extra energy is well worth the reward of feeling more connected to the maze of people I am surrounded by, whether familiar or stranger. I am hoping that the dancers involved in creating shiFT were able to walk away from the process with a deeper understanding of their roles in co-creating empathy and with the ability to take their new embodied knowledge and apply it in their own lives. I also hope that the audiences who observed the performances of shiFT left with an impetus for inquiry into the atmosphere evoked by the performance.

### **Research Success**

While I anticipated researching a wider range of aspects related to empathy, the focus change into functioning empathy for the 'average' person and the inclusion of vulnerability became especially meaningful because of its organic introduction into the research born out of true exploration by the dancers and myself. 'shiFT' was a success because it remained pliable until the end to allow for meaningful investigation into our personal needs for empathetic research. The unveiling of our own difficulties with empathy launched exploration into struggles that are relatable for many other people as well.

Now that I have an embodied grasp of the basic function of empathy, I feel compelled to continue my investigation into the other complexities of empathy I had originally intended on exploring: the effects a lack of empathetic function has on

individuals and those in their affected circle, and the wider moral contexts of the importance of empathy. I have also uncovered new questions surrounding empathy that are motivating more exploration; the most poignant being the callous irony of studying empathy behaviors in animals through scientific methods involving pain responses. While I have pre-disposed ideas about these concepts, I am looking forward to exploring them with the same detailed somatic, theoretical, kinesthetic, and choreographic research, as employed in the making of shiFT. I am eager to delve back in again to unveil more of the hidden complexities of empathy.

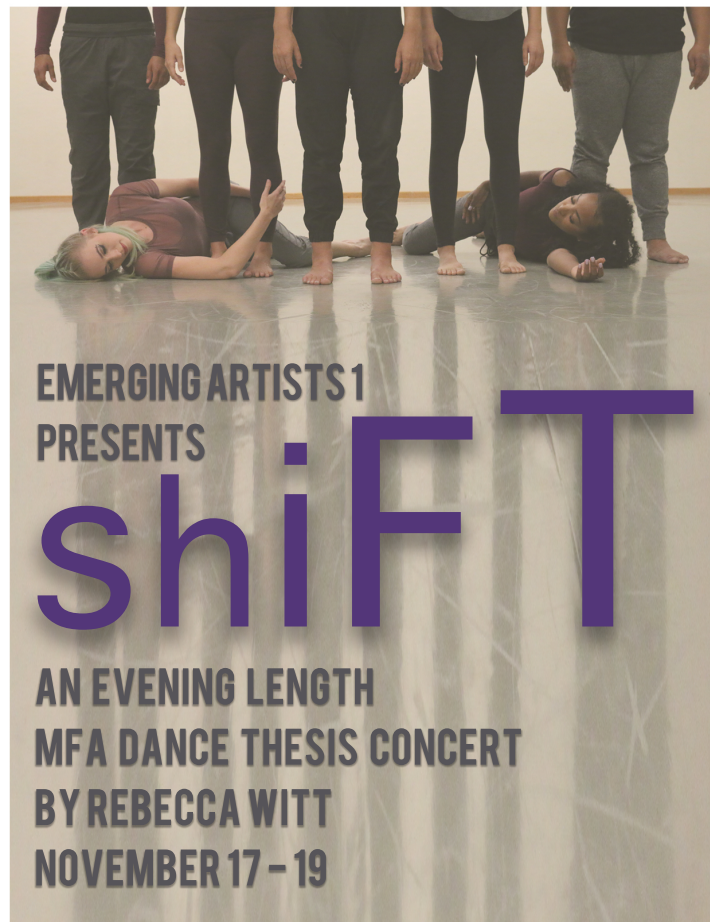


Figure 9. “shiFT” marketing poster. Rebecca Witt, Laina Carney and part of the cast of shiFT.

## Conclusion

“shiFT” found its name from the piece’s emphasis on an individual’s ability to consciously ‘shift’ to an empathetic perspective and the ‘shift’ that must occur within ourselves to co-create empathy with someone else. Through this long process of theoretical, kinesthetic and choreographic research I have found a new understanding of the process of co-creating empathy and one of the many reasons that empathy can be so difficult to accomplish. One of the greatest challenges for the experience of empathy is the avoidance of vulnerability. This can be easier to overcome once one has become aware of the process of building empathy. However, how can we encourage empathy to be utilized when not everyone is actively studying and searching out the methods involved in empathetic activation. How can this knowledge be shared? “Rarely can a response make something better, what makes something better is connection” (Brown, 2012). Through more and more shared experiences and emphasis on sincere human connection, empathy can become more prevalent in our relationships and in our culture.

In my kinesthetic and choreographic research of vulnerability and empathy, I uncovered for myself some of the major keys to allowing empathy to flourish in my own life. Empathy is not something that exists only in the brain, only in physical reactions, or only if somebody else encourages it. To fully co-create empathy, it takes personal sincerity to understand other people’s experiences, an emphasis on genuine care and human connection, a willingness to experience vulnerability, discomfort, pain, and a re-patterning of negatively reactive responses in interpersonal relationships. The process of re-patterning can be long and arduous, but it is possible because of the dynamic nature of the self. William James defined plasticity in 1890 as “... the possession of a structure weak enough to yield to an influence, but strong enough not to yield all at once” (Costandi, 2016, p.8). We are strong enough to remain ourselves and withstand the

negative effects that sometimes arise from social connections, while being pliable enough to meet the empathetic needs of other people. Through continued open conversation and transparency about the complexity and personal responsibility in cultivating empathy, the ability to empathize can be accessed by more people. This access can then lead to more instances of compassionate action, creating a more thoughtful, caring, and symbiotic community. More empathy in the world means more genuine human connection and understanding, more productive discourse in the face of divergent social issues, and more fulfilling relationships.

## REFERENCES

- Beans, L. (2014, March 8). 10 Interesting facts about earthworms. *Eco Watch*. Retrieved from <https://www.ecowatch.com/10-interesting-facts-about-earthworms-1881871982.html>
- Bergland, C. (2013, October 10). "The Neuroscience of empathy." *Psychology Today*. Retrieved from <https://www.psychologytoday.com/blog/the-athletes-way/201310/the-neuroscience-empathy>
- Brown, B. (2011). The power of vulnerability. [Video File]. Retrieved from <https://www.youtube.com/watch?v=iCvmsMzLF7o&t=841s>
- Brown, B. (2012). *Daring greatly: How the courage to be vulnerable transforms the way we live, love, parent, and lead* (1st ed.). New York, NY: Gotham Books.
- Costandi, M. (2016). *Neuroplasticity* (MIT Press essential knowledge series).
- De Waal, F.B.M., & Preston, S. (2017). Mammalian Empathy: Behavioural Manifestations and Neural Basis. *Nature Reviews Neuroscience*, 18(8), 498-509.
- Ekman, P. (n.d.) What is empathy? *Greater Good Magazine: Science-Based Insights for a Meaningful Life*. Retrieved from <https://greatergood.berkeley.edu/topic/empathy/definition#what-is>
- Lewis, B.T. (2013, September 24). Blame the brain: Why psychopaths lack empathy. *Live Science*. Retrieved from <https://www.livescience.com/39904-why-psychopaths-lack-empathy.html>
- Lim, S.C. (2014) How empathy fuels the creative process. [Video File]. Retrieved from <https://www.youtube.com/watch?v=CGLUzYUKhTs&t=545s>
- Navajo Code Talkers. (2015). 38 Earthworm facts for kids. *Navajo Code*. Retrieved from <https://navajocodetalkers.org/38-earthworm-facts-for-kids/>
- Nova Science Now. (2005). Mirror neurons. PBS. [Video File]. Retrieved from <http://www.pbs.org/wgbh/nova/body/mirror-neurons.html>
- Parkin, P. (2015). Reimaging empathy: The transformative nature of empathy. [Video File]. Retrieved from [https://www.youtube.com/watch?v=e4aHb\\_GTRVo](https://www.youtube.com/watch?v=e4aHb_GTRVo)
- Powell, P. & Roberts, J. (2017, March). Situational determinants of cognitive, affective, and compassionate empathy in naturalistic digital interactions. *Computers in Human Behavior*, 68, 137-148.
- Thompson, J. (2012, February 20). Embodied cognition: What it is and why it's important. *Psychology Today*. Retrieved from <https://www.psychologytoday.com/us/blog/beyond-words/201202/embodied-cognition-what-it-is-why-its-important>