Choreography as Art:

Analyzing the Internal and External Processes of Creating a Jive Dance

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By

Ani Hovhannisyan

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The thesis of Ani Hovhannisyan is approved:

_____________________________________
Dr. S. Victoria Jaque

_____________________________________
Dr. Belinda Stillwell

_____________________________________
Dr. Paula Thomson, Chair

California State University, Northridge
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ABSTRACT

CHOREOGRAPHY AS ART: ANALYZING THE INTERNAL AND EXTERNAL PROCESSES OF CREATING A JIVE DANCE

By

Ani Hovhannisyan

Master of Science in Kinesiology

Creativity and dance are oft-researched topics, yet it is rare that they are studied together from the interiority of one’s own mind and body. The reason for this is that dance and creativity are placed squarely at the center of the arts and, as such, have an unfortunate reputation for being subjective to the point of not meaning anything to anyone but the creator/performer. This paper attempts to add one more research project to the side of those projects that refute this claim.

By using mainly auto-ethnography as research methodologies for this paper, it is hoped that the researcher’s subjective experience of dance and choreography sheds new light on the creative process. The various levels of creation - from ‘inspiration’ to ideation and from interpretation to execution – were studied in order to understand how ballroom dances, particularly Jive styles, are constant processes of creation. Dance also was examined as both a creative and a destructive force. In addition, the biographies of some great Jive dancers and choreographers were analyzed in order to give the paper greater weight. This also created a sound basis for the auto-ethnographic, narrative sections of the paper by tying up the experiences of the researcher/choreographer with the larger traditions of Jive and ballroom dancing.

To accomplish this, data were gathered from various sources and all the data were coded and transcribed. These sources include a Vivometrics LifeShirt, Experience Creativity
Questionnaire (ECQ) and Flow State Scale (FFS-2) to use for descriptive purposes only. In addition, the researcher/choreographer kept a journal for note-taking. This included the researcher/choreographer’s weekly journal that she kept over the course of one semester (four months). It detailed the researcher/choreographer’s creative process. Themes emerged from analyzing this journal: ‘Create and explore,’ ‘choreographer’s creation process,’ ‘dancers’ needs,’ ‘emotions as a tool to get inspired and choreograph,’ and ‘music as an inspiration.’

*Keywords:* Dance, jive dance, creative process, choreography, creativity, dancers.
Chapter One

Introduction

Creativity is part of humanity. It drives technological, medical and scientific advances. It produces art works that stir emotions and inspire thoughtfulness and introspection. It provides sources of entertainment. It is an intangible thing that cannot be seen, heard, touched, tasted or smelled, but it produces things that can be seen, heard, touched, tasted or smelled.

The processes of creativity are complicated and mysterious while, at the same time, they are a phenomenon that is an integral part of human existence. As Marshall Dimock (1986) explains, “Creativity is originality. But it is more than that. It is bringing something into the world that is relatively new and possibly revolutionary in its wide circle of effects (pg. 3).”

As such, it is a central issue in the arts. In the world of the arts, creativity can be seen as a certain ‘uniqueness’ and as a restructuring and reconstructing of ‘raw material’ into artistic creations. The art work that is created through this process is a product of a mind that weaves disparate threads of thoughts, ideas and emotions into a coherent whole that can be perceived in some way by an audience. This is evident in art forms like sculpture or literature where there is an artist, the work that the artist creates and the audience that interacts with this work.

In dance, especially ballroom dances, the creative process is more complex. The choreographer is an artist who produces a work of art for an audience. But, between this artist and the audience, there is an intermediary – the dancer who, as a performer, both creates and interprets. In dance, the creative process brings movements and combinations of movements into the world in a new way through the mind of the choreographer and through the bodies of the performers.
Consequently, researching the creative process in dance is a complex process. The artist’s medium is human movement and there are multiple layers of creativity involved in turning the artist’s vision into this movement. In conducting a study about choreography, an outsider can easily miss important nuances while an insider might make too many subjective assumptions. This paper, however, tries to add to the body of research on the subject by providing both an auto-ethnographic and a phenomenological approach to the study of the choreographic process. To do this, the choreographer studied in this paper is also the researcher conducting the study.

Conducting research into social phenomena has evolved from asking questions about whether or not they ‘can’ be properly researched to asking questions about ‘how’ they can be researched. Dance and choreography are social phenomena that have been widely studied by many researchers who have answered the ‘how’ question by choosing either a phenomenological approach or an ethnographic approach for their studies. As cited in Sara Wall’s article, the researcher should be able to make a wise choice in regards to ‘how’ he or she understands the social worlds (Coffey & Atkinson, 1996). Phenomenology is, essentially, the study of the structure of consciousness and the ways in which consciousness focuses itself on objects and ideas (Sokolowski, 2000). Ethnography is the study of societies and cultures using an ‘insider’s’ view (Wolcott, 1999). Given these distinctions, there may be a gap in the literature about dance and choreography since these art forms are both a manifestation of an artist’s consciousness and they are a part of a society’s culture. This paper will attempt to bridge this gap by using mainly an auto-ethnographic approach in a single study about the creative process involved in dance and choreography.

For this to happen, it is important to understand these two methods and how they function even though for this study mainly an auto-ethnographic study is used. It also is
important to maximize the utility of both their differences and their similarities so that one methodology is not ‘watered down’ in order to accommodate the presence of the other. In addition, it is particularly important to achieve a functional, well-balanced synthesis of these two methodologies since phenomenology largely derives its structure of study from the topic being researched while ethnography is aimed at creating a scientific outlook.

To this end, this study will utilize mainly an auto-ethnographic approach in combination with the phenomenological approach. In auto-ethnography, the researcher becomes his or her own subject of study and an internal duality is created by being both the observer and the observed. This allows the focus of the phenomenological method and the ethnographic method to complement each other. From the article, *An Autoethnography on Learning about Autoethnography*, Sarah Wall reports that an auto-ethnographic study is the experience of the individual’s personal nature (Ellis, 2004; Ellis & Bochner, 2000). In Phenomenological study the researcher carefully choses participants that have lived the phenomenon then her personal understanding is introduced (Creswell, 2013). Therefore, the researcher in this study used mainly an auto-ethnographic study to gain a deeper understanding of her choreographic experience/process.

Understanding this research design is essential for this study since its aim is to provide a focused and in-depth analysis of dance and choreography - social phenomena that are both central, cultural artifacts and intensely personal experiences.

During this study, it was assumed that the choreographer is documenting his or her experience in his or her journal in a truthful manner. It also was assumed that the dancers have some knowledge in at least one dance form. The study was limited to dancers from California State University Northridge in the Kinesiology/Dance department who were registered to take
Kinesiology 426-Choreography but who had little or no experience in the Jive dance style.

Delimitations included studying dancers between the ages of 18 and 24 and that no other style of
dance was choreographed besides a Jive dance piece. It was hoped that the
researcher’s/choreographer’s subjective experience will shed new light and develop a much
closer perspective of the creative process in choreography.
Chapter Two

Literature Review

*Artistic Creativity*

In order to create a foundation for the combined auto-ethnographic and phenomenological approach in this study, it is critically important to understand creativity and the process of creation in dance. According to Arnold (1986), in his paper titled *Creativity, Self-Expression and Dance*, a work of art is a kind of expression that is as much about the process of creation as it is about the product that has been created. The artist creates art, but it is up to an audience to breakdown, reconstruct and extract meaning from the work of art. Artist creativity is, therefore, both an internal, private process and an external, public process. According to Thomson, P., Keehn, E. B., & Gumpel, T. P. (2009) in their journal titled *Generators and Interpreters in a Performing Arts Population: Dissociation, Trauma, Fantasy Proneness, and Affective States* interpreters and generators are interrelated. After studying both the interpreters and generators in fantasy proneness measured by Inventory Childhood Memories and Imaginings the analysis showed that there were no actual differences between them. There were also no major changes happening between interpreters and generators on traumatic events. The only considerable difference was in regards to dissociation. For example, interpreters engaged more dissociative processing than imagined/invented proneness. Thomson, P., Keehn, E. B., & Gumpel, T. P. (2009) report that “the findings may indicate a fundamental difference between the control that inherently exists within the creation of a new work by generators, and the interpreter’s need for absorption and a suspended sense of self while performing a work of art.” (pg. 84).
Analyzing this artistic creativity in dance is very complex. As mentioned earlier, creativity can be understood as a particular reconstructing and restructuring of ‘raw materials.’ In dance, the movements of the human body are the artist’s raw materials. Yet, there are only a finite number of movements that the human body can perform – the body is a finite entity and it only can move in a finite number of ways. In addition, these movements have been explored and expressed in the tens of thousands of years that dance has been a part of human history. Consequently, dance exists as a combination of finite elements/movements that achieve variety and novelty only because these elements/movements can vary vigorously in length, size, and form (Anbarasanti & Prihatmanto, 2014). As a result, there are hardly any ‘individual motions’ which can be called ‘new.’ Since artistic creativity can be viewed as “bringing into the world something new” (Dimock, 1986), dance is a challenging art form both to create and to analyze.

The very nature of the creative process in dance further complicates dance as both an art form and as an object of study. As Kaeppler (1978) explains in Dance Ethnology and the Anthropology of Dance, “dance is a cultural form that results from the creative use of human bodies in time and space…and it is a multi-faceted phenomenon that includes, in addition to what we see and hear, the ‘invisible’ underlying system, the processes that produce both the system and the product, and the socio-political context” (p. 3). This all begins with a choreographer who works within the traditions of a dance form, creates a new vision of this dance form by translating his/her thoughts and ideas into movement and then ‘gives’ all this to the dancer as a dance. The dancer then interacts in a creative process with the choreographer to interpret, learn and execute the dance. This dance is then performed for the members of an audience who, in their own creative process, construct meaning from the dance.
As a result, the creative process in dance is akin to a dialogue amongst the choreographer, the dancer and the audience. In their paper titled *Thinking in Action: Thought Made Visible in Contemporary Dance*, Stevens and McKechnie (2005) explained that dance is, in fact, very much like language since it is stored by the brain in a similar manner. Their research relied heavily on prior psychological studies as they worked to create a clear psychological map of how meaning is interpreted and stored in the human brain. They extensively studied the “Quantum Leap Youth Choreographic Ensemble” and showed that dance, since it is interpreted by the brain in a similar way to language, can be analogous to theater. Along with feeling emotions and processing expressions, theater-goers listen to the performers’ words in order to extract meaning from the play. Likewise, dance-viewers construct meaning by listening to and feeling the emotions of the music and by viewing the motions of the dancers’ bodies. As a result, the dancers are themselves, semantic symbols in the same way that words are semantic symbols (Stevens & McKechnie, 2005).

This, though, feeds back into the problem of how dance, as both a creative process and a creative product, can be studied. Dancers may be semantic symbols and dance movements may be processed by the brain like language, but the ‘language’ of dance requires translation. Unlike in the literary arts where critics can quote directly from a primary text as support for their arguments, the primary ‘text’ in dance is unquotable. It is the performance itself. To ‘quote’ from a dance performance is akin to providing an interpretation. This, then, adds another layer of interpretation to the complex dynamic of studying dance as a creative process. Malnig, Nugent and Satin (2009) address this issue in their paper titled *Dialogues: Writing Dance*. They argue that a clear ‘jargon’ for dance needs to be created and used in order for students and critics to effectively communicate their experiences of dance.
The Choreographer as Researcher

With the choreographer serving as both this study’s subject and this study’s researcher/critic, the ‘jargon’ of dance will be, by necessity, utilized in a form that is translated for the readers of the study. But a larger question arises from this defense. Beyond this ability to translate the ‘jargon’ of dance, what else qualifies a choreographer to serve as a researcher who studies the creative processes involved in dance?

In the article, Dancing into Voice: Articulating and Engaging Embodied Knowledge by Wilkinson (2013) who cited Sansom (2011) describes dance as “not just a particular physical language which is only seen on the outside as conveyed by the external body. Dance is something that also has its naissance from deep within, and is felt, as well as thought about, in and through the body” (p. 30). It is the goal of this study’s combined auto-ethnographic and phenomenological approach to examine this internal/external duality by removing at least one level of interpretation from the ‘chain of interpretations’ that exists between the creation of dance and the viewing/critiquing of dance (Malnig, Nugent & Satin, 2009).

In addition, choreographers must have a solid grasp of the history and traditions of their art form in order to create dances. Dance forms are distinguishable by their genres and these genres grow out of – and then feed back into - cultural history and dance history. The dual role of the choreographer as both an interpreter of tradition and a creator of ‘new’ dances is essential when trying to understand both dance traditions and the process of creation in dance. This means that choreographers are always, in a sense, historical researchers.

This concept of a choreographer as a kind of historical researcher is analyzed in great detail in the paper Richard Alston: Twenty-One Years of Choreography by Angela Kane (1989).
Alston was a ‘classical’ choreographer who dealt extensively with classical music and created dances for this genre of music. He had to understand the long history of classical music in order to be a successful classical choreographer. Alston also was a certain kind of interpreter – understanding the genre, narrowing down the possibilities for effective dance moves and sequences, and then creating a new dance out of all the available ‘raw material’ inherent in the dance form’s traditions (Kane, 1989). Artists like Alston show that choreographers are, in fact, already researchers who convey their knowledge of their art form’s history to a larger audience.

Kirsh (2011) delves even deeper into the complex role of the choreographer as both a researcher and as an innovator in his study of a famed choreographer’s creative process. In his article, “Creative Cognition in Choreography,” Kirsh (2011) examines the methods and practices of this successful choreographer (whom he only identifies as WM). Kirsh cites Sawyer’s and Dezutter’s (2009) model of distributed creativity and cognition in his study and explains how WM looks at these two aspects of creativity in his or her process: Distributed Creativity and Embodied Cognition (Sawyer & Dezutter, 2006). In Distributed Creativity “team members harness resources to interactively invent new concepts and elements” (p. 1) and that in Embodied Cognition “creative subjects think non-propositionally, using parts of their sensory systems as simulation systems” (p. 1). This study reveals that WM utilizes both forms of creativity in his approach to choreography.

Kirsh also shares that the choreographer “relies heavily on modality translations as a generative technique” (p. 5) and that, through WM’s example, this has been shown to be very successful. He further explains that WM’s dancers are given the opportunity to use their senses, imagine kinesthetically, and translate the choreographer’s movement, gesture, touch, and sight non-linguistically so that they are able to feel and translate the movements in their own way. As
the study states, “Just as an artist or musician develops a close coupling with their tools—pencil and paper for the artist, violin for the violinist—so a dancer must have tight control relation between body-as-tool and body-as-display-medium. Embodiment bears on dance the way instruments bear on artistic or musical product” (p. 2).

In addition, WM is described as using not only his senses to choreograph and create movement but also as deriving inspiration from external sources. For example, WM is known to have studied movement disorders such as ataxia and the movement of the body’s internal organs during an open-heart surgery. He also makes his dancers use imagery and gives them various scenarios to translate into movement through the use of their own imaginations. In addition, WM’s approach to choreography offers dancers multiple options for interpreting and manifesting movements since the same technique will not work equally well for each dancer. Through WM’s example, it is shown that various forms of research play a role in the creation of successful choreography.

**Jive Dance as Cultural Artifact**

Although its origins do not date back nearly as far as classical dance, Jive is a form of dance that is steeped in history. In fact, a study of its history provides insight into the social and economic developments of the United States during the Twentieth Century. It began, in part, as an aspect of the Harlem Renaissance and was closely associated with African-American liberation and young male vibrancy (Sherlock, 1993). During that time, Jive was a participant-centered form of entertainment without a formal element of spectatorship. But, as dance forms such as the Jive became more and more extravagant as the decades progressed, fewer and fewer people were willing or able to perform the dances. This ‘weeding out’ of amateur dancers morphed into the idea of dancing as a spectacle – something that can be viewed as a performance
and not be actively participated in by the audience (Sylvester, 2005). Dances like the Jive became classified as ballroom dances as part of this process (Hill, 2009). Along with this metamorphosis came a financial transition as well; dancers became professionals who dance for a paying audience. Ballroom dancing has come to be a middle-to-upper-class form of entertainment (Dance, 1970). As McMains (2006) explains in her book *Glamor Addiction: Inside the American Ballroom Dance Industry*, Jive and Swing are now a statement of class status and they require a certain amount of rigor and commitment to learning the techniques.

An even closer look at the history of Jive reveals that, despite this disparity between the dance form’s roots and its present status as a ballroom dance, the Jive that is seen today cannot be separated from its origins. Young, an African-American musician, was one of the earliest and most influential proponents of a new form of music that would eventually lead to Jive. His artistry laid the groundwork for its creation. In a paper titled *Lester Young: Master of Jive*, Daniels (1985) explained that Young combined two previously quite distinct qualities in his music, sophisticated and intricate harmonies with an easy, cool playing method, which gave his music a ‘calm edge.’ This allowed for the kind of dance that was associated with this music to be lively, energetic and quick while also ‘warm and welcoming.’ Given these origins, Jive is closely linked to African-American culture and had a certain ‘liberating’ force to it (Ukpokodu, 2000). In this way, Jive was, and still is, an expression of identity.

The World War II era saw the proliferation of this kind of music and dancing. Soldiers from the United States brought this form of music and dance to the United Kingdom where it developed additional powerful connotations of hope and liberation. In fact, Baade’s 2006 paper, ‘The Dancing Front’: Dance Music, Dancing, and the BBC in World War II, explains that this music and dance became an essential part of British life during World War II. The BBC found
that it had to satisfy its audience’s interest in this American music in a way that simultaneously suited the British temperament. As these two features collided, the Boogie-Woogie arose as a dance form in the UK and greater experimentation occurred with the Swing in the USA (Baade, 2006). This experimentation further contributed to the history of Jive and continues to inform the Jive dances that are performed today.

Then, in the post-World War II era, ‘Jive’ became a generic term used to describe most forms of American ‘Swing’ dancing. These dances are typically very fast-paced, they are set at tempos as high as 176 beats per minute, and they thrive on energy rather than on flamboyance. This energy creates a certain ‘glamor’ that is vested, not in the ‘thrill’ of the spectacle, but in the sophistication and speed of the dancing. In 1968, Jive was officially adopted as the fifth Latin dance form in international dance competitions, and it continues to be a part of ballroom dancing to this day (Sherlock, 1993).

**Jive as a Medium for the Study of the Choreographic Process**

As with other forms of dance, Jive dances start with the choreography. The choreographer calls upon his or her knowledge of the history and traditions that define Jive as a distinct genre of dance and then creates a new dance. But Jive, as a dance form, lends itself to a creative process that deeply involves the dancers as well as the choreographer. Usually, in any dance style, there is only one choreographer, whether the dance itself has one, or ten, or more dancers. Unlike in many other forms of dance, Jive dancing is always done in pairs. In Jive, one dancer leads his/her partner by rotating and turning figures (Crowder, 2006). This means that the dancers have a unique role to play since they must work together very closely to create their own interpretation of the choreographer’s dance. With enough practice, the pair can function as one
entity and they may even perform in ways which the choreographer might never have foreseen. This makes the role of the dancers that much more important; not only are they interpreters of the choreographer’s dance, they also are creators in that they can put their own ‘spin’ on the dance. This can very easily make or break a piece, depending upon how well the dancers perform their duties.

Given this system, the choreographer and the pair of dancers are both equally integral to the creative process in the Jive. They both have to develop interpretations; the choreographer interprets the tradition and the dancers interpret the choreographer’s vision. They both have to create their art form out of these interpretations. But, this creating is done at two levels that are very different. The choreographer must create a dance, which is very much a kind of artistic creation. But the dancers are given this artistic creation and are asked to ‘breathe life’ into the dance. In other words, their creativity is much more like scientific creativity; it reworks and restructures what it is given for a particular end.

This creative duality is evident in the successes of some of modern Jive’s greatest dancer/choreographers. Distinguished Jive dancer/choreographers such as Karen Hardy, Ian Waite, Riccardo Cocchi and Yulia Zagoruychenko bring newness to Jive with their interpretations of the traditions and movement patterns that define the genre. They also bring a passion to the creation and execution of Jive dances that sets a standard for all other Jive choreographers and dancers.

There are few dancers who can boast of a career as distinguished as Karen Hardy’s. Born July 14, 1970 in England, Hardy went on to construct a successful ballroom dancing career that spanned both sides of the Atlantic. She began dancing at the age of five and, by eighteen, was
already well-known. Between the ages of eighteen and twenty, she won both the East Coast and the West Coast amateur championship titles in the United States and returned to England as a dancing hero. Within the next year she became an internationally renowned dancer and represented England in international competitions. At age twenty-four, she became a professional dancer and won acclaim in various forums worldwide. Hardy currently runs a dance studio named ‘Karen Hardy Studios’ where she trains future dancers and offers courses on a wide range of ballroom dances. During her career, she was noted for her powerful performances which coupled elegance with energy. This made her an ideal Jive dancer (Hardy, 2015).

Ian Waite is another extremely famous ballroom dancer who has gone on to become both a teacher and a choreographer. Born on January 29, 1971 in England, Waite first entered the world of dancing at the age of ten. His first teacher was Mary Richardson, a champion Latin American Dancer. He turned professional at the age of twenty-six and went on to win numerous championships including the Dutch Championship. Waite also made it to the finals in both the Europe-level and the World-level Latin American Dancing Championships. Today, Waite’s career primarily revolves around lecturing and instructing. Like Hardy, Waite runs his own dance school and, as a self-described ‘out-going personality,’ is noted for his Jive dancing (Hardy, 2015).

Finally, Riccardo Cocchi and Yulia Zagoruychenko are currently the world’s best known Latin American dancers. Cocchi, from Italy, and Zagoruychenko, from Russia, have been dancing together as a pair since the US National Professional Championships in 2007. Unlike Hardy and Waite, Cocchi and Zagoruychenko are still active performers, although they also spend some time teaching. They have performed on various stages in both Europe and the USA, they consistently have been ranked among the greatest ballroom dancers of all time, and they
have won five world championships so far. Their style is an excellent study in how creation and interpretation go hand-in-hand. They also epitomize the absolute synchronicity that allows a pair of dancers to function as one unit while on stage because they generally focus more on body movements than on particular poses. With their near-perfect execution of techniques, their extreme precision in their motions and their immense creativity, Cocchi and Zagoruychencko are powerful examples of Jive dancer/choreographers (N/A 2015).

As the careers of these four renowned Jive dancer/choreographers show, Jive is a useful medium for studying both the internal and external creative processes in choreography. These artists found success in the Jive by bringing their internal, creative ideas and their passion for the dance form into external, public form through their many award-winning dances. Their success recalls that Jive is a dance form that is grounded in individual liberty and energy, while it exists as a highly technical expression of traditions and specific movement patterns. This all starts with a choreographic vision that is made manifest through several levels of creative interaction. A study that utilizes a dual approach that is both phenomenological and auto-ethnographic can analyze the process of choreographing a Jive dance very thoroughly. Since phenomenology is, essentially, the study of the structure of consciousness and the ways in which consciousness focuses itself on objects and ideas (Sokolowski, 2000) and ethnography is the study of societies and cultures using an ‘insider’s’ view (Wolcott, 1999). This dual approach to this study can provide a balanced analysis of the creative process behind choreography.
Chapter Three

Methods

Phenomenology/Auto-Ethnography

The aim of this study was to perform a clear qualitative analysis in order to understand how the creative process works in choreography and dance. Although extensive research has been done on various aspects of dance, much of this research was conducted through a ‘chain of interpretations’ that creates a distance between the researcher and the subject of the research (Sokolowski, 2000). However, since dance and choreography arise from such an internal, private process, it is both interesting and useful to study them with some of the links in this ‘chain of interpretations’ removed. In other words, when the choreographer or the dancer is the researcher, some level of interpretation can be eliminated from the research.

To this end, I choreographed a new Jive dance routine, taught this dance to students and had them perform the dance publicly. I also performed the dance with the students. Since, most students were new to the jive dance piece I had to step in and perform the dance with the students. During this entire process, I used mainly an auto-ethnography to study the creative process. I employed somewhat a phenomenological study in order to ensure that any personal bias on my part was minimized. These methods were utilized in a scientific manner and a constant self-reflexivity was present so that, at every step in the process, I was able to be both the observer and an insider. In addition, the roles were kept mutually independent so that one did not influence the other. As a result, readers of this study can gain a clearer, more insightful picture of the creative process involved in dance. Auto ethnography was originated by Hayano 1979 which presents as a personal narrative and has been studied for more than twenty years (Ellis, 2004; Ellis & Bochner, 2000). The researcher presents Autoethnography by developing themes and
meanings and explaining them as a form of a narrative. Even though, there are various examples of Auto ethnography (Bochner, 2001), it all boils down to one thing, describing an essential and a unique story from the point of view of the researcher. Wall (2006) reported Ellis & Bochner, 2001) who stated “I see Auto ethnography as a research method that is part of, but delineated from, the broader realm of autobiography. By conceptualizing it this way, we can use self in a methodologically rigorous way, but personal stories can coexist with Auto ethnographic research” (Ellis & Bochner, 2000, p. 11).

This was possible because of the nature of both phenomenology and auto-ethnography. Phenomenology is, essentially, the study of how a single consciousness focuses on and understands a particular object. It is, in one sense, the study of subjectivity (Sokolowski, 2000). This was essential to this study because a clear consciousness of what was being done and thought was required for me as the researcher/choreographer so that I could ensure that the research was as free from bias as possible.

However, the problem with a purely phenomenological approach is that it can focus too much on the observer’s psyche and not enough on the study’s object (Wolcott, 1999). This can mean that, instead of an analysis of creativity in choreography, the research project could have ended up becoming some kind of psychological exercise in self-monitoring.

Ethnography, on the other hand, focuses on the object rather than on the consciousness (Wolcott, 1999). Its sub-set, auto-ethnography, is unlike a standard ethnography where a third person observes and records what is being studied. In auto-ethnography, the participant is the observer. This means that the perspective of the participant will become the perspective of the reader as well. As such, a gap between the interested reader and the object being studied can be closed. This is one of the main aims of this research project.
The problem with auto-ethnography, though, is that by focusing so intently on the object of the study, it may be easy to forget that the observer is also the observed. Subjective biases can very easily slip in and dilute the entire research project.

Auto-ethnography and phenomenology are exact opposites (Wolcott, 1999), this study mainly utilized an auto-ethnography and it highlights its positives while counteracting its negatives so that a balanced study was achieved. This ensured the validity of the results that were derived from this research project.

In addition, I incorporated the themes that emerged from my journal that I had kept with me for one semester (4 months). I presented my true, open, and expressive narrative that I wrote in my Journal. Those themes describe my creative process as a choreographer when creating the new Jive Dance.

Participants

The participants in this study were volunteers from California State University Northridge who were registered to take Kinesiology 426-Choreography. Four participants were male and ten were female. They ranged in age from 18 to 24 years and all of them were physically active and fit (n=14). There were no restrictions for gender, race or ethnicity.

The participants volunteered to learn and perform a new Jive dance piece. They were not all professional dancers. Most of them had just some basic knowledge of dance. All of the participants were a part of a larger study therefore they completed an “Informed Consent” form. The participants were not studied in this study, they just participated in the researcher’s/choreographer’s dance and performance.
Even though these students participated in this study and performed the new Jive dance, the data collected in this study is related only to myself.

Profile: Researcher/Choreographer/Participant (Me)

Dance is my life. I am a student of dance and a teacher of dance. I perform choreography and I create choreography. Dancing has given me courage, confidence, a sense of power in my life and a belief in my ability to be a fighter. In addition, performing brings joy to my life and each different dance style brings me a different kind of joy. Dance is more than a hobby or a profession for me; it is a life-style. I am truly grateful for dance.

I hold a Bachelor’s Degree in Theatre Arts and Dance, and I have been dancing professionally for about six years in Salsa, Ballet and Modern Companies. Besides dancing and performing throughout Los Angeles, I also have traveled to Europe and Asia to perform with my Modern Company in International Dance Festivals. In addition, I have taught various dance styles to kids and adults from beginning to advanced levels throughout Los Angeles. Teaching has helped me tremendously since it is has made me more patient and it has improved my own skill-level. I also was invited by California State University to teach and choreograph dance pieces for their Winter Dance Concerts and to work on a production that recently took place at the Playhouse at California State University, Los Angeles.

For this study, I chose to create a new Jive dance. I did so because I find that Jive is a very enjoyable dance style, and it brought me lots of energy and happiness while I was in the Master’s Program. Above all, though, I did this because I hoped that investigating my creative process while I created this new Jive dance will benefit other choreographers and will build upon and expand the findings from previous studies.
Data

The data for this research study was collected from a journal, a Vivometrics LifeShirt, an Experience Creativity Questionnaire (ECQ) form and a Flow State Scale (FSS-2) form. The journal was hand-written and remained in the possession of the researcher/choreographer throughout the whole process. Its contents were transcribed onto a Word Document.

All of the data was stored on a USB drive that is now kept at California State University Northridge’s exercise physiology laboratory in Redwood Hall (RE). Only the researcher and the advisor have access to this USB drive. The original hand-written journal will be maintained for 10 years and then they will be destroyed.

The participants who participated in the study, including myself, were assigned codes. These codes were anonymous identifying numbers that were used to access files and research studies.

Measurements

Journal

During the research process, I, as researcher/choreographer, hand-wrote notes in a journal over the course of one semester. These notes were about my experiences throughout my choreographic process. I read the journal several times and then prepared its text for coding. The journal’s contents were transcribed into a Word document that was labeled “Journal.” The lines were spaced and numbered and memos were created via the comment function. Then, text relevant to the creative process was coded, the codes were defined and a codebook was created. Next, categories were developed from the codes and, from this, themes were developed. Lastly, a visual representation of the findings was created.
Journals are valid research instruments. In this study, the researcher truthfully wrote about her feelings for a full semester of research. This made the journal a valid instrument that demonstrates a descriptive analysis of the choreographer’s choreographic process.

*Experience Creativity Questionnaire (ECQ)*

The choreographer, who was her own subject and the researcher, completed an Experience Creativity Questionnaire (ECQ). This questionnaire was completed at the end of the semester after the Jive dance performances were over. The data from the ECQ was collected for descriptive purposes.

Experience of Creativity Questionnaire (ECQ): The ECQ (Nelson & Rawlings, 2009) is a two-part questionnaire developed from qualitative studies when trying to understand phenomenological experience. In this study, the ECQ was used to collect experiential and existential measurements of the choreographer’s creativity. Part A of the questionnaire includes 44 items, with 5-point scales, evaluating the choreographer’s creative process via the categories: Distinct Experience, Anxiety, Absorption, Power/Pleasure and Clarity/Preparation. Part B includes 19 items, with 5-point scales, evaluating the existential dimensions of the creative process via the categories: Transformation (which defines a deeper involvement with self and world), Centrality (which emphasizes the importance and the drive from the involvement in the creative process) and Beyond the Personal (which moves beyond the personal in order to connect with the core of the work). It has adequate reliability and validity (Nelson & Rawlings, 2009; Thomson & Jaque, in press).

Vivometrics LifeShirt
The choreographer, who was also the researcher in this study, wore a Vivometrics LifeShirt several times throughout the research process. A Vivometrics LifeShirt gathers ambulatory data on physiological variables by measuring cardiac output (TCG method) and heart rate variability (HRV). These data are then analyzed by using VivoLogic Software which is a “statistical software package that analyzes autonomic physiological variables” (Thomson & Jaque, 2011).

The Vivometrics LifeShirt is a valid and reliable ambulatory instrument to gather electrocardiogram (ECG) data in order to study heart rate variability and activity within the two branches of the Autonomic Nervous System (ANS) - the sympathetic nervous system (SNS) and the parasympathetic nervous system (PNS) (Heilman & Porges, 2007).

*Flow State Scale (FSS-2)* (Jackson & Eklund, 2004).

The choreographer, who was her own subject and the researcher, completed a Flow State Scale (FSS-2) questionnaire three separate times in the later part of the research process. This was done for descriptive purposes. Flow refers to an artist’s state of being during the creative process and the FSS-2 is designed as a tool for assessing specific activities that measure Flow states. The FSS-2 has a five-point scale ranging from 1 (*never*) to 5 (*always*) with nine subscale scores for measuring Global Flow (GF), Challenge-Skill Balance (CSB), Merging Action & Awareness (MAA), Clear Goals (CG), Unambiguous Feedback (UF), Concentration on the Task at Hand (CTAH), Sense of Control (SC), Loss of Self-Consciousness (LSC), Transformation of Time (TT) and Autotelic Experiences (AE). The Flow State Scale (FSS-2) is a reliable and valid instrument (Jackson & Eklund, 2004).

Procedures
To begin my research, I recruited student volunteers to serve as participants in this study. All of the participants were told that I would be writing about my creative process as I choreographed and taught a new Jive dance piece. All procedures were explained to them step-by-step, and they were told that participation in the study was completely voluntary and so they could withdraw from the study at any time. No participants were compensated for their time.

Once the volunteers were deemed to fit the criteria and agreed to be included in the study, I started the process of creating the new Jive dance. At the end of the semester, the participants and I rehearsed and then performed the dance piece. After first rehearsing without an audience present, we performed in three public concerts with audiences in attendance. This dress rehearsal that took place at 4PM on Wednesday, November 18, 2015. The first performance followed at 8PM on the same day. Then, a second and third performance took place on November 19, 2015 at 2PM and at 8PM, respectively. All of these performances took place at California State University Northridge at Plaza Del Sol Performance Hall, a 500 seat theatre.

Throughout this entire study, I kept a journal about my creative process. I wrote notes in the journal at various times over the course of one semester: sometimes when a feeling or an idea came to mind during and after each rehearsal. During my analysis of this journal, I noticed the repetition of certain words, ideas and phrases. For example, I saw that “creating,” “exploring” and “experimenting with movements” emerged as themes in my documentation of my creative process.

I also gathered data during this study by wearing a Vivometrics LifeShirt several times throughout the semester. This Vivometrics LifeShirt contained two inductive plethysmography bands or sensors, a triaxial accelerometer that detects and records movement and body posture, and three ECG recording sites connected to three disposable self-adhesive electrodes. All
physiological markers were connected to a central data cable that was attached to a palm pilot computer that was secured in a fanny pack. The Vivometrics LifeShirt required calibration of the respiration cycle to enhance respiratory sinus arrhythmia measures (Heliman & Porges, 2007). The Vivometrics LifeShirt was worn at various time points, but the only data that was used in my study was during my Choreographic/Creative Process when I was teaching. Since, the rest of the data was not able to be used by applying the 10% rule. The first time I wore the Vivometrics LifeShirt was when I was teaching/creating some of the Jive choreography to the dancers a few weeks into the semester. The second time was towards the end of the semester when the dance was almost completed. The third time was on stage during the technical rehearsal. The fourth time was during the dress rehearsal on stage. The fifth, and last, time was during the first performance in front of a public audience. I did not wear the Vivometrics LifeShirt during the second and third performances.

When I wore the Vivometrics LifeShirt, an assistant followed me and wrote down detailed notes that tracked all of my activities. I used these notes to help analyze the data collected by the Vivometrics LifeShirt. However, during the ECG cleaning to remove artifact, it was apparent that more than 10% of the data was too noisy to accurately analyze HRV. As a result, the data from my dress rehearsal and the data from the performance were not included in my research study. Only the data from my creative process is included in this study.

I also completed two questionnaires during my research process. The ECQ questionnaire was completed the day after the performance. The FSS-2 assessment, on the other hand, was designed to be completed within 30 minutes after completion of the rehearsals and a performance. I completed the first FSS-2 assessment after the rehearsal at the studio, the second one after the dress rehearsal on stage and the last one after a public performance.
Chapter Four

Results

The purpose of this study was to understand and gain knowledge from my creative process as a choreographer. I worked on creating a new Jive dance from the beginning of the semester on August 27, 2015 until the last day of the semester on November 12, 2015. The three performances of this dance took place on November 18, 2015 and November 19, 2015 at the Plaza Del Sol Performance Hall at California State University, Northridge (CSUN).

Even though there were 14 participants in this study, I only gathered and analyzed data about myself as the choreographer. This data came from my journal, an ECQ questionnaire, a FSS-2 assessment and an ambulatory physiological instrument (Vivometrics LifeShirt). This section describes the findings of the themes that emerged from analyzing my journal and the findings from the results of the ECQ questionnaire and the FSS-2 assessment. It also details the findings of my statistics when wearing the Vivometrics LifeShirt. This includes quantitative data regarding heart rate (HR), respiratory sinus arrhythmia (RSA), pre-ejection period (PEP), very low frequency (VLF), low frequency normalized (LFn) and high frequency normalized (HFn).

Several themes emerged from my analysis of my journal. These themes are ‘create and explore,’ ‘choreographer’s creation process,’ ‘dancers’ needs,’ ‘emotions as a tool to get inspired and choreograph,’ and ‘music as an inspiration.’

During the initial stages of my creative process, words and ideas related to creating and exploring often were repeated in my journal. As a result, analysis of my journal revealed that ‘create and explore’ was a theme that was very important in the beginning of the process. This is evident in notes such as, “during the first day of my choreographic process I was ‘experimenting
and exploring’ with various movements just to test the waters and see what the dancers can do . . .” Since the dancers had different dance backgrounds, I also explained, “I tried not to make the patterns, steps too difficult until they learn some basic Jive dance steps and the counts and how it works.” Many comments in my journal were a variation on this theme. Lines such as, “I wanted to experiment with the dancers by giving them certain steps, patterns, movements to see what level most of them are” repeat throughout the first pages of my journal and illustrate how the beginning stage of my choreographic process works.

The next theme that emerged from analyzing my journal was ‘choreographer’s creation process.’ Terms such as “change” and “change of plans” were repeated in the journal when I was describing my process of my creation. For example, I commented, “if something does not feel right I will come back to the choreography and change or tweak little things from the dance…” and “changing certain sections of the choreography when dancers are struggling and are not able to master the movements well enough after practicing a few times…” This demonstrates that flexibility, especially when it came to caring about my dancers, was an important part of my choreographic process.

Further analyzing the ‘choreographer’s creation process’ theme revealed that flexibility also was a part of my creative process when it came to teaching methodologies. For example, when choreographers teach a group of dancers they usually choose if they want to teach with counts or with the rhythm of the music. I found it successful in my choreographic process to mainly use counts to teach the dancers. However, as I explained in my journal, “When I was teaching the Jive dance I found it successful when I used counts most of the time and time-to-time musical cues to create movements.” In notes such as this, my journal reveals that I mainly
used counts to teach the dancers the Jive dance but that I had enough flexibility as a teacher to sometimes use music cues, especially if there was a big change in the choreography.

As was evident in the notes that I wrote about ‘choreographer’s creation process,’ analysis of my journal revealed that ‘dancer’s needs’ was an important theme in my journal and a significant part of my creative process. My journal reveals that I always made sure that the dancers were comfortable doing the movements while, at the same time, I also let them use their signature moves in my choreography so that they could shine on stage. For example, I wrote, “I make sure that the dancers have the chance to show off their signature moves because each dancer has a specific style/moves patterns/techniques/lifts/tricks that they can use and are best at. Therefore, a part of my choreographic process is using the dancers’ signature moves to make them shine on stage.”

Analysis of the journal also revealed that this emphasis on accommodating the dancer’s needs was balanced by addressing their needs in another way. Though I made notes such as, “I also accommodate with the dancers’ needs so they do not get too frustrated,” my journal also shows that I challenged the dancers enough to keep them interested and to make them grow as individuals. One of my goals, as expressed in my journal, was to “teach movements that are a little more challenging than the dancers can handle to make them grow as dancers and increase their skill level. To push the dancers a little outside of their comfort zone without too much pressure.” In this way, my journal shows that ‘dancer’s needs’ were a very important part of my choreographic process.

This emphasis on the dancer’s needs is part of understanding another crucial idea that emerged from the analysis of my journal - having a positive environment also was an essential part of my creative process. In finding a lot of positive comments in my journal, I came to
understand that ‘emotions as a tool to get inspired and choreograph’ was an important theme in my choreographic process. Terms such as ‘emotions’ and ‘energy and attention’ were repeated throughout my journal. For example, I wrote, “the dancers’ energy definitely affects my creative process/choreographic process. It can slow or speed up my creating process.” Overall, my experience when working with the dancers was really joyful because the dancers gave me their full attention which made my experience go smoothly and I definitely enjoyed the process.

The only negative emotion that I noted in my journal was frustration. I wrote, “One frustrating part of my choreographic process is when I do not have everyone there.” This would happen as the day of the performance was getting closer and some dancers were continuing to miss class. At this time, I further noted, “I would teach a section of the choreography and during the next rehearsal I had to re-teach it to those who did not show up for class.” But, analysis of my journal revealed that this one negative emotion and its impact on my choreographic process was tempered by the overwhelmingly positive emotions associated with the whole experience. This is evident in my journal when I further explained my frustration and wrote that “Even though, that slowed the process down…everyone continued to be dedicated and worked hard… which helped me as a choreographer.” As a result, I was really happy with the dancers because they were dedicated and gave me wonderful energy which I then used to work with them.

The last theme that emerged from analyzing my journal was ‘music as an inspiration.’ I wrote, “The music plays a big role during my creative process. I get a lot of my inspiration from the music…” When I started choreographing the Jive dance, I listened to a variety of Jive music in order to see which songs and parts of songs sounded and felt good to the heart. I then put the tracks together and, from there, started creating the rest of my choreography. This was explained in my journal when I wrote, “Once the dancers learn some patterns/section of the jive dance style
I try to put on various jive music to see what works well, looks and feels good with the dance/choreography. Then I chose the music from the early stages of my choreography.” In other words, I experimented with the Jive music to make sure the dancers also enjoyed the rhythm and felt good when they were dancing. I also mentioned in my journal, “When creating a jive dance, mixing various songs together is key. It is not only interesting, fun and exciting, but it also keeps the dancers alive and engaged and the audience on their feet so they do not get bored.” In this way, my journal shows that the music is one of the important parts of my choreographic process. This was true not only for me and my dancers, but for the audience as well. The dancers enjoyed being in the piece.

From looking back at the journal and its themes, I have noticed that joy and gratitude permeated my entire experience. Though not planned initially, I ended up participating in my own dance. Since, most of the dancers did not have much experience in the Jive dance style, I had to step in and perform my own piece with them. Therefore, I was not only the generator but also the interpreter in that I put my own spin in my own choreography. This gave me the opportunity to transform my own work and that because a more intense personal experience for me. Performing this Jive piece brought even more joy and pleasure to my process. One of the memos in my journal stated, “I felt a sense of achievement after tonight’s performance. Even though I was not planning on being in my own piece but I was very happy it turned out this way because I got even closer to the dancers and we shared and bonded even more compared to when I was just choreographing.” This joy and gratitude also stemmed from the dancers’ attitudes. Even though the dancers did not have much Jive experience, they performed absolutely wonderfully with lots of positive energy and they shared their optimism with me. I expressed my feelings about this in my journal by stating, “I felt very happy and satisfied. I was also grateful
for my dancers who worked hard and committed to this all the way. To see them talk about how well they did and smile after our last performance just brought lots of joy to my heart and soul.” Then, in summing up my joy and gratitude, I wrote, “I could not be more thankful for my advisor who helped me and guided me and showed me her love and care not only for my dance piece but also towards me. I feel grateful.” Overall, this was one of the best experiences of my life.

The results of analyzing the data collected from the ECQ questionnaire and from the FSS-2 assessment are detailed in Table 1 and Table 2 below. Table 1 explains the ECQ assessment and how all the scores were pretty high except for the distinct experiences and clarity and preparation. The anxiety was also pretty high due to the intensity and physically demanding choreography. Looking at the overall results, there was a lot of pleasure that was experienced from this experience and a deep state of flow was experienced during this process. Table 2 describes the flow state scale (FSS) assessment and how the experience was very pleasing and rewarding.

Overall, the results show that the choreographer almost always experienced Flow while dancing/performing.

**Table 1 ECQ (Experience of Creativity Questionnaire)**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Part A: Experiential Domain</strong></td>
<td></td>
</tr>
<tr>
<td>Distinct Experiences</td>
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</tr>
<tr>
<td>Anxiety</td>
<td>3.75</td>
</tr>
<tr>
<td>Absorption</td>
<td>3.6</td>
</tr>
<tr>
<td>Power/Pleasure</td>
<td>3.6</td>
</tr>
<tr>
<td>Clarity &amp; Preparation</td>
<td>2.25</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Part B: Existential Domain</strong></td>
<td></td>
</tr>
<tr>
<td>Transformation</td>
<td>3.9</td>
</tr>
</tbody>
</table>
All the scores show moderately high results except for the distinct experiences and clarity and preparation domains. The anxiety domain was also moderately high, possibly due to the intensity and physically demanding nature of the choreography. Looking at the overall results, the experience brought a lot of pleasure and a deep state of meaning during the creative process.

**Table 2 FSS-2 (Flow State Scale)**

<table>
<thead>
<tr>
<th></th>
<th>DFS</th>
<th>FSS Rehearsal</th>
<th>FSS Dress</th>
<th>FSS Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>4.14</td>
<td>3.8</td>
<td>4</td>
<td>4.2</td>
</tr>
<tr>
<td>CSB</td>
<td>4.25</td>
<td>4.75</td>
<td>4.75</td>
<td>5</td>
</tr>
<tr>
<td>MAA</td>
<td>4</td>
<td>2.5</td>
<td>3.5</td>
<td>4.25</td>
</tr>
<tr>
<td>CG</td>
<td>4.5</td>
<td>3.75</td>
<td>4.5</td>
<td>5</td>
</tr>
<tr>
<td>UF</td>
<td>5</td>
<td>3.5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>CTAH</td>
<td>4.5</td>
<td>4.5</td>
<td>4.25</td>
<td>4</td>
</tr>
<tr>
<td>SC</td>
<td>4.75</td>
<td>4.75</td>
<td>5</td>
<td>4.75</td>
</tr>
<tr>
<td>LSC</td>
<td>3.5</td>
<td>3.25</td>
<td>2.5</td>
<td>3.25</td>
</tr>
<tr>
<td>TT</td>
<td>1.75</td>
<td>3</td>
<td>1.75</td>
<td>1.75</td>
</tr>
<tr>
<td>AE</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

Abbreviations: DFS (Dispositional Flow Scale), FSS (Flow State Scale), Global Flow (Global), Challenge-Skill Balance (CSB), Merging Action & Awareness (MAA), Clear Goals (CG), Unambiguous Feedback (UF), Concentration on the Task at Hand (CTAH), Sense of Control (SC), Loss of Self-Consciousness (LSC), Transformation of Time (TT), Autotelic Experiences (AE).

Overall, the choreographer almost always experienced flow in the chosen activity (dance/performing).

The findings from the analysis of the data gathered by Vivometrics LifeShirt are detailed in Figures 1-3 below. They display information regarding the variability in my Autonomic Nervous System (ANS) at different points in my creative process.
The HR and RSA data relate to the Autonomic Nervous System (ANS). The ANS is divided into two branches: The Sympathetic Nervous System (SNS) and the Parasympathetic Nervous System (PNS). The RSA data is related to respiration and the vagus nerve response that slows heart rate (HR). RSA results from the activity of the Parasympathetic Nervous System.

Figure 1 below details the data related to PEP, the period between the ventricular contraction and opening of the heart valves (Wilhelm, Roth, & Sackner, 2003), and RSA. When looking at the data collected from the Vivomtrics LifeShirt, it was discovered that the lowest measure of RSA level was when I was teaching during Choreography One (C1). This was the time of highest stress. In contrast, the highest measure of RSA levels was during Base-Rest. This was the time of lowest stress. My lowest PEP level (greater SNS response) was when I was taking the Stroop test, a cognitive interference stress test. The increased SNS during this time reveals increased physiological challenge. In contrast, the highest PEP level (lowest SNS) occurred during post-rest which means that my SNS activity decreased. The only PEP measures that were able to be cleaned were while teaching at the Studio. The rest of the data was not possible to analyze due to artifact.

The data from the dress rehearsal and the performance were not possible to analyze because more than 10% of the sample was compromised by artifact; therefore, only the data from the Creative Process was used for this research study.

\textbf{Figure 1} RSA and PEP measures
The conclusion drawn from Figure 1 is that there is a negative correlation when comparing my RSA and PEP. PEP was increasing during my Choreographic Process and my RSA was lowest at that point. In other words, the parasympathetic (PNS) activity decreased more when I was teaching the first Choreography, consequently faster and shallower breaths and faster heart rate were evident compared to any other time of monitoring. In contrast, my PNS activity increased during Base-Rest. At that time, I had slower and deeper breaths and slower heart rate.

**Figure 2** HR and BR/M Measures.
Figure 2 also shows that there is a direct relationship between the HR and BR/M. As the HR rate increases, so does the BR/M. During the first choreographic process (C1), my HR and my BR/M were at their peak. I was most active during the first choreographic process (C1); therefore, my HR was highest during those period. As a result, it can be concluded that my Sympathetic Nervous System (SNS) activity increased more during my first choreographic process (C1) than during my second choreographic process (C2) and more than any other time during monitoring with the Vivometrics LifeShirt.

In addition, it was discovered that during the rest period my SNS activity decreased compared to Self-Report Testing (SRT) and during the Warm-Up (WU). Figure 2 also shows that during the Stroop challenge (cognitive interference test) the SNS activity increased slightly compared to when I was taking the Self-Report Testing (SRT) and Warm-Up (WU).

Figure 3 LFn and HFn Measures
As Figure 3 shows, the LFn and the HFn work inversely. While the LFn increases, the HFn decreases. During my first choreographic process (C1), my HFn was at its lowest. This means that my Sympathetic Nervous System was active and at its highest peak during C1. In contrast, during Self-Report Testing, my Parasympathetic Nervous System was engaged. This means that my heart rate slowed down.

Figures 3, detail the data collected regarding Heart Rate Variability (HRV). This is measured through normalized low frequency (LFn) and high frequency (HFn). During my first choreographic process (C1), my Hfn is at its lowest which means that my PNS decreased. In contrast, during Self-Report Testing, my PNS increased which means my heart rate slowed down.
Chapter Five

Discussion

The purpose of this study was to gain a deeper understanding of how this choreographer’s creative process works. The study revealed themes that emerged from examining the researcher/choreographer’s journal. In addition, the FSS-2 and the ECQ assessment forms were completed during the creative process and around the time of the final rehearsals and performances. The data gathered from these forms was used for descriptive purposes in this study.

After analyzing all the data, I concluded that the choreographer (me) experienced high flow states, including autotelic experiences, suggesting a flow personality (Ullen, de Manzano, Almeida, Magnusson, Pedersen, Nakamura, Csikszentmihaly, & Madison, 2012). When investigating dispositional flow during dance activities, the choreographer experienced moderate-to-high dispositional Flow on the nine flow sub-scales. The data also reveals that the choreographer was able to experience frequent flow-like experiences on a global level including balancing skills and challenges, merging actions and awareness and concentrating on the dance with a strong sense of control. She also endorsed a frequent ability to lose a sense of self-consciousness and to process unambiguous feedback during the creative process and performance. The findings also show that state flow experiences were highest during performance. The choreographer enjoyed that experience. These results illustrate that the choreographer had a positive experience during the course of this study.

The ECQ results confirm state flow (FSS-2) results. The choreographer’s lowest scores on the ECQ were in the Emotional/Preparation category since she was more drawn to expressing
her creative ideas in the moment the highest ECQ scores were on Transformation and Clarity domains because she felt clarity and a sense of transformation during the creative process. The Anxiety domain score was also fairly high possibly due to the intensity and physically demanding nature of the choreography. Looking at the overall results, the choreographer experienced pleasure and flow during the creation and performance of the dance.

The choreographer, who was also the performer and the researcher, wore an ambulatory system to measure physiological responses (heart-rate variability) during the Creative Process while creating/choreographing movements. It was observed that the sympathetic nervous system (SNS) increased more when she was teaching during the first Choreographic Process (C1), compared to her second Choreographic Process (C2) and more than any other time during monitoring with the Vivometrics LifeShirt. In addition, it was discovered that during her rest period her SNS activity decreased compared to Self-Report Testing (SRT) and during the Warm-Up (WU).

The themes that emerged in the journal were as follows: ‘create and explore,’ ‘choreographer’s creation process,’ ‘dancers’ needs,’ ‘emotions as a tool to get inspired and choreograph,’ and ‘music as an inspiration.’ These themes not only express the pleasure that the choreographer experienced throughout her creative process, they also show that changes and flexibility were an important part of the creative process. As the choreographer explained in her journal, “If most of the dancers are having trouble with certain movements, I try to tweak little moves here and there to make it more comfortable for the dancers so they do not get frustrated.” Since most of the dancers were new to the Jive dance style, the choreographer also had to make accommodations and change certain elements so that the dancers were able to master the whole
dance. As a result, the dancers gave the choreographer their full attention and enjoyed learning the Jive dance.

This, in turn, meant that the choreographer’s creative process went smoothly. The choreographer experienced feelings of joy and pleasure. She also experienced a sense of both internal and external positive energy from the students. This overall positivity was revealed in a statement at the end of the journal. After the performances were over, the choreographer remarked, “I feel very satisfied and content. I felt a sense of achievement after tonight’s performance…” In addition, her last few comments were, “Everything is a learning experience. We perform, we learn, we adapt, we communicate, it is all a part of being a performer and a choreographer. As long as we learn from the experience and grow as dancers/choreographers that is what is essential.”

In the end, the limitation of this study was that not all the data collected from the Vivometrics LifeShirt was able to be analyzed. Self-report instruments are subjective in nature and may not accurately reflect the researcher’s experience. The delimitations of this study was that the researcher was the only person studied.
Chapter Six

Conclusion

This study was designed to analyze the creative process in choreography and its execution from the point of view of the choreographer. It examined choreography as a process of both interpretation and creation. In terms of interpretation, choreography deals with analyzing and reconstructing tradition in order to understand what is currently viable. In terms of creation, it is a restructuring and reordering of available ‘raw materials’ into something new and novel - in this case a Jive dance.

The various levels of creation, from ‘inspiration’ to ideation and from interpretation to execution, were studied in order to understand how the Jive style is a constant process of creation. Jive dance, which has a documented history as a cultural artifact, is a useful platform for the study of the creative process in choreography. First, it has practitioners who, in their dual roles as choreographers and dancers, embody the intensely personal nature of the art form. This is useful for the study of creativity in choreography because creating art is an interior process with an exterior goal. In addition, Jive dances are unions of various contrasting threads that come together into a coherent whole through a highly complex process that brings combinations of various elements into the world through the mind of the choreographer and the bodies of the performers. The process of creating a Jive dance is, therefore, a perfect vehicle for the study of creativity since creativity is a combination of imagination, intuition, various levels of attention and a mixture of both internal and external procedures.

Furthermore, by using the researcher as the object of research, this study was able to develop a much closer perspective on the creative process in choreography. To do this, both
Phenomenology and Auto-Ethnography were used in a dual-approach to this study of the choreographic creative process. It was essential to use both these methods effectively in order to derive a valid result from this research project. As a result of examining the creative processes of this researcher/choreographer while she created a new Jive dance, the study expanded upon the findings from previous studies.

In so doing, it is hoped that this research study will add some knowledge to the vast body of literature on dance. Acquiring greater insight into this choreographer’s choreographic process might benefit and shed light on other choreographers’ processes of creation. They may learn something new that they may use during their own choreographic processes.

However, more research is needed to build upon this study. Future studies should seek to understand and develop insight into the creative processes and experiences of other choreographers as they work to create new dances, particularly when they are creating Jive choreography.
References

http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7111793&tag=1


http://www.fredastaire.com/jive/


http://blogs.bu.edu/ballroom/competitions-101/dancing-styles


Retrieved September 2015

http://sophia.smith.edu/blog/danceglobalization/2012/05/02/ballroom-the-dance-that-globalization-built-2/


http://www.karenhardystudios.com/the-studios/about-karen-conrad/


http://adrenaline.ucsd.edu/Kirsh/Articles/CreativeChoreography/Creative_Cognition_in_Choreography_Final.pdf


http://www.ualberta.ca/~iijm/backissues/5_2/pdf/wall.pdf


file:///U:/etd7745_LWhite-Wilkinson.pdf


Appendix A

Descriptive Statistical Tables

**Table 1** Vivometrics LifeShirt Data for Creative Process

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Base-Rest</th>
<th>SRT pre</th>
<th>Stroop</th>
<th>WU</th>
<th>C1</th>
<th>C2</th>
<th>SRT post</th>
<th>Post-Rest</th>
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</thead>
<tbody>
<tr>
<td>RSA</td>
<td>198.48</td>
<td>70.77</td>
<td>56.34</td>
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<td>21.19</td>
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</tbody>
</table>

*Notes:* RSA=Respiratory Sinus Arrhythmia; PEP=Pre-Ejection Period; SRT=Self-Report Test; WU=Warm-Up; C1=Choreography One; C2=Choreography Two; SRT post=Post Self-Report.

**Table 2** Vivometrics LifeShirt Data for Creative Process

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Base-Rest</th>
<th>SRT pre</th>
<th>Stroop</th>
<th>WU</th>
<th>C1</th>
<th>C2</th>
<th>SRT post</th>
<th>Post-Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR</td>
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<td>76.61</td>
<td>102.59</td>
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<td>Br/M</td>
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<td>25.54</td>
<td>46.73</td>
<td>47.64</td>
<td>42.26</td>
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<td>12.63</td>
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</tr>
</tbody>
</table>

*Notes:* HR=Heart Rate; Br/M=Breaths Per Minute; SRT=Self-Report Test; WU=Warm-Up; C1=Choreography One; C2=Choreography Two; SRT post=Post Self-Report.

**Table 3** Vivometrics LifeShirt Data for Creative Process

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Base-Rest</th>
<th>SRT pre</th>
<th>Stroop</th>
<th>WU</th>
<th>C1</th>
<th>C2</th>
<th>SRT post</th>
<th>Post-Rest</th>
</tr>
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<tbody>
<tr>
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<tr>
<td>HFn</td>
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<td>0.3202</td>
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<td>0.444364</td>
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</tbody>
</table>

*Notes:* LFn=Low Frequency Normalized; HFn=High Frequency Normalized; SRT pre=Pre Self-Report Test; WU=Warm-Up; C1=Choreography One; C2=Choreography Two; SRT post=Post Self-Report.
Appendix B

Glossary of Terms

Breaths Per-Minute (BR/M): Measures the breathing rate per minute.

Experience of Creativity Questionnaire (ECQ): Quantitative questionnaire derived from Qualitative-Phenomenological study to measure felt and direct experiences of artistic creativity

Flow State Scale (FSS-2): Measures the individual’s psychological flow experiences immediately following a preferred activity.

Heart Rate (HR): Measures the number of beats; speed of the heart beats per minute.

Heart Rate Variability (HRV): The intervals from one heart beat to the next.

High Frequency Normalized (HFn): Frequency measure related to Parasympathetic response

Low Frequency Normalized (LFn): Frequency measure that assesses both Sympathetic and Parasympathetic responses


Pre-Ejection Period (PEP): The period between the ventricular contraction and during the opening of the valves.

Respiratory Sinus Arrhythmia (RSA): Activates the vagus nerve that slows down the heart rate. During inhalation the heart rate increases; during exhalation the heart rate decreases. RSA is related to the parasympathetic nervous system.
**Sympathetic Nervous System (SNS):** Second branch of the Autonomic Nervous System:

Increases heart rate, activating the ‘fight or flight’ response.

**Themes:** Repetitive groups of texts, words, phrases interrelated into meaning units.

**Vivometrics LifeShirt:** An ambulatory vest with sensors that gathers data on cardiorespiratory physiological variables.