

**UNIVERSITY OF CALIFORNIA,
IRVINE**

**Reflections on reflections: Modern dance and mirror use in a university dance
training environment**

THESIS

**submitted in partial satisfaction of the requirements
for the degree of**

MASTER OF FINE ARTS

in Dance

by

Shantel L. Ehrenberg

**Thesis Committee:
Professor Jennifer Fisher, Chair
Professor Mary Corey
Professor Janice Gudde Plastino**

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REPORT OF A THESIS

The thesis of Shantel L. Ehrenberg, consisting of
Reflections on reflections: Modern dance and mirror use in a university dance training
environment

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the Master of Fine Arts Degree in Dance.

Thesis Chairman **Date**

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2005

DEDICATION

To

My Parents
Richard and Linda Ehrenberg

My foremost teachers in

Love
Humility
Intelligence
Creativity
Wit
Risk
Faith
Laughter
Hard Work
Commitment
Family

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ABSTRACT OF THE THESIS

Reflections on reflections: Modern dance and mirror use in a university dance training environment

By

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Master of Fine Arts in Dance

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Professor Jennifer Fisher, Chair

The mirror is often present in modern dance studios in Western cultures and used for training, a tradition adopted from ballet. Yet, there is conflict among teachers and students about whether the mirror helps or hinders modern dance skill acquisition. Therefore, my preliminary project addresses the following questions: what are the presumed benefits and hindrances of the mirror in modern dance training and what is actually experienced by the dancer? Are a modern dancer's perception, movement execution, and technique influenced by mirror use?

Observation of and interviews with dance majors at the University of California, Irvine, a veteran modern technique professor, and autobiographical information by this author, indicates attitudes and viewpoints that may be experienced by modern dance students. With an ethnographic methodology I explore: 1) how and why the mirror is used in today's modern training, 2) assumptions that permeate modern technique in relation to the mirror, 3) whether the mirror enhances or restricts a modern dancer's self-perception and therefore, technique and performance. Although modern dance is the focus, other forms like ballet and jazz are also discussed.

This paper builds on existing research related to the mirror, kinesthesia, embodiment, perception, and the mind/body problem. My research is not meant to find a definitive answer to mirror use, but to help those in the field of dance know what might or might not happen when a dancer uses the mirror. There have been some hypotheses about the benefits and hindrances of mirror use, but few are supported with extensive research.

MFA Thesis

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INTRODUCTION

I stand before the mirror in my modern class. There I am, my twin, a reverse image staring back at me. I start the combination and my twin dances before me, doing the same thing I do but on her other side. I tendu my right foot, and she tendus her left. I look to my right and she looks to her left. I never see her back, but it doesn't matter, she still appears whole to me. I did not think much of it before this moment. I've danced with her many times and sometimes I know her better than I know my own felt body. But on this day I analyze her. I try to dissect this shadow I have taken for granted. 'She is doing the opposite, she is two-dimensional, I can only see her when I look in the mirror': I rationalize her and apply objective thoughts to her image. Suddenly I cannot continue with the movement, my alignment becomes poor (and I know this because she has poor alignment too), the movement is choppy and distracted by mental hiccups. I realize I have nurtured this mirror twin and I am dependent on her. She helps me understand that I move. She helps me understand how I dance. She shows me that I dance at all. I judge her and correct her often. But what I do to her I always do to myself. Because although she isn't me, she's the mirror representation of me; we are the same person. She has become a part of my dancing reality. I feel she inspires positive and negative perceptions at the same time. Do I have an objective, straightforward relationship with my mirror representation or a critical and unrealistic one? It is too soon to tell...

The above self-evaluation was recorded in 2004, during my initial experiential research into the use of the mirror in modern dance training. As a result of continued pursuit of this issue, I embarked on this project. In the following thesis paper I document

preliminary research on the perceptual relationship between the university modern dance student and the mirror. My research began because of several pieces of contradictory information about the mirror's presumed uses in modern dance training. For instance, the internal impetus for movement is often emphasized by modern teachers, yet the mirror, which is unable to reflect internal mental and physical processes, is still present and exposed in the dance training environments. I decided to investigate these and other related contradictions of the mirror in modern dance training in more detail to find out whether prevailing presumptions were experienced by other dancers and not just anecdotally reported by expert teachers and scholars. I also wanted to compare my mirror and dancing perceptions with those of other modern dancers to distinguish between my idiosyncrasies and what might be more broadly felt. The results of this inquiry builds on existing research and writing on the dancing experience as it relates to the mirror, kinesthesia, embodiment, perception, and the mind/body problem.

Very little dance-specific research exists to conclusively support whether the mirror helps or hurts modern dance technique training and some conflicting perspectives exist. Using an ethnographic methodology I chose to study the personal experience of dance students and teachers in modern classes taught with or without the mirror, and add to that my autobiographic reflections. With this approach, I set out to address the following:

- find how and why the mirror is used in modern technique class
- document assumptions that permeate modern dance classroom culture in relation to the mirror
- analyze mirror use in the dance classroom as an inside observer

- explore my own interactions with dancing and the mirror
- reveal a group of dancers' thoughts and experiences with the mirror and movement
- gather preliminary research for future inquiry

Although modern is the focus, ballet and jazz are also discussed as they relate to these issues.

Modern dance is considered in this paper to be a concert dance form that developed in the early twentieth century, primarily in the United States and Europe. In particular, the modern dance context this paper discusses is as taught at the University of California, Irvine (UCI).

To some degree, the mirror tends to be taken for granted within the dance studio; nonetheless, I see the mirror as a complex object that needs detailed examination for the actual role it plays in a modern dancer's development and skill acquisition.

REVIEW OF LITERATURE

Mirror use in dance has a relatively undocumented history, with no definitive references in literature to prove exactly when dance training and the mirror became so synonymous. The prevailing idea is that mirror use began with ballet, probably around the late eighteenth century when mirror technology was rapidly developing and mirrors were popular in the homes of European aristocrats.¹ Modern dance, as it arose in the early 1900s, most likely adopted the tradition of mirror use from ballet. This may have occurred because ballet and modern classes shared studio space, due to budget constraints, or perhaps modern dance implemented mirror use because it was thought to be a useful training tool. Either way, the mirror became a familiar element in many dance studios and classrooms throughout schools and universities in the Western world.

Mirror Use in Pedagogy: Conflict and Contradiction

A survey of a number of dance texts, to find what experts and teachers have written about the mirror, attests to the little attention the mirror has received, and yet proves it has not been ignored. It was difficult to find modern pedagogical texts that address the mirror, but a few briefly comment on mirror use in the classroom and its contradictory nature. Ballet texts mention mirror use more frequently, but similarly for no more than a paragraph and often with conflicting attitudes.

The Positive Uses

Some of the modern dance pedagogical texts describe the mirror as a useful training tool. In *Teaching Dance Skills: A Motor Learning and Development Approach*,

¹ Two resources claim mirror use started around this time, but neither gives a reference to support their statements: “Ballet dancers, for example, have insisted on practicing before a mirror since the middle of the eighteenth century...” see Foster 253. “Since some time in the nineteenth century, the mirror has played an ever present partner to the ballet student and performer...” see Bull 272. A search of the literature yielded no conclusive evidence about the beginning of mirror use in dance history.

dance educators and social scientists Marliesse Kimmerle and Paulette Côté-Laurance supply the most comprehensive list of mirror use benefits. For the student, they say that the mirror gives instant visual feedback on the correctness of a body position or line, that the mirror is useful for “basic” body alignment, that correct positions can be felt by seeing them in the mirror, and overall it is a “great learning tool” (196). A table listing the dance teacher’s “effective uses of the mirror in the technique class,” set off from the main text, reiterates their belief that teachers should only use the mirror in the following ways:

Show stationary movements and positions; illustrate a correct and incorrect position; emphasize a body alignment aspect; clarify a spatial aspect (height of limb or relationship between two body parts); specify the starting and ending position of a movement; show symmetrical and asymmetrical shapes; observe students while performing the movements with them; observe students while demonstrating; monitor students from different vantage points in the room; detect a student who needs attention; show students how to verify the proper alignment of critical body parts.

(197)

In *The Dancer Prepares* (5th edition), dance educators James Penrod and Janice Plastino reiterate that, “[Facing the mirror] allows you to get visual feedback about your own body lines and postures” (16).

Various ballet text authors talk about the mirror’s beneficial uses, and I consider these descriptions relevant to benefits found in modern dance. Dance educator Sandra Noll Hammond’s pedagogical text, *Ballet Basics* (3rd edition), states, “The mirror allows

the dancer to check instantly the correctness of a position or movement...” (3). Dance theorist Felicia McCarren, writing about *Giselle* in the book *Dance Pathologies: Performance, Poetics, Medicine*, suggests that the mirror in training helps a ballet dancer internalize the gaze, or in other words, imagine herself being watched by an audience (100). *Ballet is the Best Exercise*, a how-to ballet book for novices and dancers-in-training by former ballerina Cynthia Gregory, restates some of the above, but with more categorical enthusiasm at first. She writes,

There’s just no other way [than with a mirror] to tell if your hips are straight and your arms held correctly...it’s also an essential method for correction and sometimes even encouragement...It helps enormously to be able, with the help of a mirror, to look at your posture from the side and to study how to lift your leg without lifting your hip and so on. (28-29)

The Negative Uses

Yet, these same texts, even the latter example, which seem so keen on mirror benefits, also suggest mirror-related problems. According to Gregory:

Though there are days when we all wish we could throw some sheets over the mirrors and just dance for fun, we know that we couldn’t really do that – we’re too concerned with getting it right. You have to make peace with the mirror. It can be cruel...” (29)

This suggestion that the mirror can’t be covered because a dancer needs to “[get] it right” is quickly complicated by a suggestion that trying to get it “right” in the mirror will also negatively affect technique.

Many dancers find that they become so obsessed with watching to get everything just right in the mirror that they lose a certain fluidity. If you're looking in the mirror constantly, you'll never be able to use your head and neck correctly. So be realistic about the mirror and don't let it get in the way. (29)

Gregory never suggests how this can be done. Exactly how can one be "realistic about the mirror?"

Other texts call the mirror a "crutch" and some suggest solutions. For instance, Hammond states that a mirror may present a distorted position of the body and also that reliance on it can make it difficult to adjust to stage performance conditions. She suggests teachers occasionally turn ballet classes toward a non-mirrored wall to prepare them for performance (3). Penrod and Plastino also say turning away from the mirror should be given equal attention in training and that this helps a student become kinesthetically aware of where the body is in space (16). Ballet master Frank Augustyn, in his autobiography, writes about a teacher who paid for drapes to cover the mirrors because she felt the use of them did not prepare the student for performance and for feeling, rather than seeing, positions (23). In another dancer autobiography, *Nothing to Hide*, Robert LaFosse talks about Jerome Robbins' practice of turning dancers away from the mirror and asking dancers to make eye contact, "really *look* at each other" (222).² LaFosse also calls the mirror a crutch, suggesting the dancer is better off relying on the "objective opinion of the ballet-master." Kimmerle and Côté-Laurance say the mirror can sometimes be disruptive to locomotion across the floor for students who might

² Robbins' attention to mirror-obsessed dancers is probably best represented in his ballet pas de deux "Afternoon of a Faun."

continually look at themselves, neglecting head and direction changes; they also suggest varying the front of the class. Like others, they warn that students can become so focused on their mirror image, they ignore their internal sensorial physical feeling which might prevent students from developing their kinesthetic awareness (196-7).

Basic Concepts in Modern Dance, by dance educator Gay Cheney, mentions the mirror's negative points from a modern choreographer's perspective. She calls dance-artists that overuse the mirror "mirror-fed minds" that only deal with shape, and often neglect the qualities of motion, speed and space. This kind of choreographer, she says, has a "crutchlike dependence" on the mirror and needs to try and get outside themselves kinesthetically, "that is, to know through muscle sensation what [they] look like visually" (85). Lastly, the most recently published modern dance pedagogical text found, *Harnessing the Wind: The Art of Teaching Modern Dance* (2003), by dance educator Jan Erkert, briefly confirms the mirror's usefulness as tool but mainly reports numerous negative aspects of the mirror. For example, Erkert writes that the mirror does not give an accurate reflection of a three-dimensional person, and daily staring in the mirror can lead to narcissistic tendencies or a troublesome body image (167).

Another point of contention, found in many pedagogical texts, is whether mirror use is best at a young age or only by expert dancers. Mirror use at the beginning stages of learning is supported by Kimmerle and Côté-Laurence. They say it may help beginning dancers find correct alignment in dance training, although they also warn of overuse when teaching beginners in ballet (196-7). They state that the "skilled learner" or "experienced dancer" should be able to monitor their performance internally, therefore "no longer requiring extrinsic feedback from...the mirror" (116). Gregory also says the

mirror is more important for beginners in dance who are trying to get every step right and work on posture and position (29).

On the other hand, in *Classical Ballet*, Gretchen Ward Warren writes that she employs the “untraditional practice” of eliminating the studio mirror because beginning students need to commit a correct position to “muscle memory” faster. But she finds this practice unnecessary for expert dancers: “In upper-level and professional classes...the mirror is a crucially important tool; dancers use it constantly to assess and readjust their line” (82). Dance theorist Richard Merz believes that mirror use by less experienced dancers, like children and youths, might be dangerous. Young people’s self-perception is unstable, he writes, and the mirror’s reflection of only outer appearance may instill a sense of shame. He suggests that the shaping of personality by searching in the mirror should be questioned. Dance counselor Julia Buckroyd raises similar questions for mirror use during adolescence in her book *The Student Dancer*, which is a culmination of her experience as counselor at a dance conservatory. She says that it is unlikely the teenage student is capable of seeing an accurate mirror image or detaching herself from what she sees in the mirror. Buckroyd claims it is maturity that allows one to use the mirror creatively: “In due course, when the worst of the trials of adolescence are over, it may be possible to learn to use the mirror in a way that is less damaging” (57-8).

These references echo the conflicting advice and experience found throughout my modern dance training. Sometimes I was told to not use the mirror or to be suspicious of the mirror’s reflection, and yet there I was, standing and dancing in front of the mirror every day. It was difficult to ignore. Although many dance practitioners are aware of both sides of the mirror, there is no conclusive evidence to support whether the

mirror helps or hurts the dancer in training. My overriding question, with this contradictory advice from experts and teachers, is: how can a dance student consciously know if he or she is using the mirror “correctly” or “incorrectly” at every moment of training?

Scientific Inquiry and Discussion

Sally Radell, dance scientist and professor of dance at Emory University, and her colleagues have done considerable research on the effects of the mirror in ballet training for the last several years, and their results published in several scientific journals, were highly informative for my research.

Radell, et al., conducted two similar experiments in 2003 and 2004 with two separate groups of undergraduate women enrolled in ballet classes, taught by the same instructor, over two fourteen-week semesters. Each semester’s students were split into two classes, one taught using mirrors and one without. At midterm and finals, each class was videotaped doing the same ballet adagio and allegro phrases. At the end of the semester, the video performances were then rated by the instructor and also a blind reviewer who had no knowledge of which was the mirror or non-mirror class. The dancers were scored on a scale from 1:low skill to 5:high skill, based on each dancer’s rhythmic accuracy, ease and flow of movement, mastery of steps, and body alignment. The following findings are stated in the “Journal of Dance Medicine & Science”:

...in the nonmirror class, there was significant increase in the adagio scores, but no significant increases in adagio and allegro scores for the mirror class. These results suggest that the use of the mirror in a ballet classroom may negatively affect skill acquisition of the dancer. (961)

The researchers also concluded that "...perhaps the use of the mirror was distracting and inhibited the dancers' ability to focus more internally on the performance of the phrase and thus resulted in less improvement in performance" (964). Radell, et al., recommend future inquiry into how the mirror might affect the learning environment of dancers, since they are the only researchers using control groups to address it thus far (47).³

Although not specifically addressing dance, other scientifically-oriented research about the mirror (also used as a reference by Radell, et al.) was informative to me. Research on external perception of self and the mirror was conducted by social psychologists Charles S. Carver and Michael F. Scheier. Their research was published in an article which discusses "self-consciousness assessment" of 68 female undergraduate subjects. In this study, the subjects were directed to one of two cubicles, one with a mirror and one without, where they filled out Exner's (1973) Self-Focus Sentence Completion blank. This test was developed and validated as a measure of egocentricity, or self-focus, as a response style. Self-focus is defined by Exner as "*clearly* [focusing] on the self with little or no regard for the external world" (as quoted in Carver and Scheier 326). When answers were scored and quantified, the researchers found that the mirror's presence heightened self-focus sentence completions. This meant that a subject near a mirror seemed more likely to be aware of herself as an object or concerned with her appearance. In a second experiment, the mirror was replaced with an "audience," of one observer. They found that the presence of either a mirror or audience heightened self-focus of most participants.

³ Kimmerle and Côté-Laurence also state "[research] on the effectiveness of the mirror in dance learning is scarce" (196).

Research on mirror use in sports science may also contribute to an enhanced understanding of dancing in front of a mirror. Kinesiologists Kathleen A. Martin Ginis and Mary E. Jung, and preventive medicine expert Lise Gauvin, were concerned, as I am in this research, about negative effects the mirror may have on female exercisers. They found that the American College of Sports Medicine's guidelines, which are meant to establish rules promoting more active lifestyles, state that mirrors should be put on at least two of the four walls of an exercise studio. Thus, Ginis, Jung, and Gauvin conducted an experiment asking sixty women to exercise on a stationary bike with and without the mirror and then complete standardized questionnaires on body image, feeling states, and self-efficacy. (Self-efficacy is interpreted as level of confidence at doing an activity, in this case a physical one, like riding a bike or dancing.) The questionnaire results indicate the following: without the mirror the subjects, "...did not experience any change in positive engagement or tranquility, but they did experience some mildly positive changes in other feeling states – a decrease in physical exhaustion and a large increase in revitalization." By contrast, women in the mirrored exercise environment, "...experienced primarily negative outcomes – a decrease in positive engagement, a tendency toward decreased tranquility, no change in physical exhaustion, and only a small increase in revitalization" (359). This suggests that in exercise environments, more negative reactions to physical activity occur with the mirror than without.

Integral to all of these studies, and therefore considered in my work, is the theory of objective self-awareness developed by psychologists Shelley Duval and Robert A. Wicklund. This theory claims that a person will have more self-awareness in the presence of any stimulus, e.g. a mirror or video camera, which focuses attention on the

self. In this increased self-aware state, they hypothesize, the person will self-evaluate according to some ideal (4). Because there is often a discrepancy between the imagined ideal and the actual perceived self, Duval and Wicklund posit that a person will not react impartially to self-evaluation. Since the dancer is perpetually in front of the mirror, then, is he or she frequently in an objective self-aware state, making and experiencing negative self-evaluations?

Motor learning theory, as discussed by Kimmerle and Côté-Laurence in *Teaching Dance Skills*, was also relevant to some of my questions about the mirror. Motor learning, as a field, is concerned with how human movements are learned as a result of practice or experience. The specific concepts that Kimmerle and Côté-Laurence concentrate on are: the nature of motor skills, internal processes involved in learning, and conditions of practice necessary for learning. Cognitive psychology is a strong base for motor learning theory, they state, and the study of cognition, perception, information processing, attention, and memory are particularly emphasized (xiv). I found their definition of the term kinesthetic awareness most applicable to how I use the term in my research. They describe kinesthetic awareness as “the conscious sensation of movement and body position” (73). Giving a very simplified description of this physiologic process, they write that nerves throughout the body – in muscles, skin, and joints – detect location, direction, and speed of body parts and movement. Helping to detect equilibrium is the vestibular apparatus, a small organ in the inner ear containing special fluid. To feel the body, they explain, messages, or nerve firings, get sent from the vestibular apparatus and the tactile sense detectors at each end of the nerves being stimulated to the brain. Somehow, consciousness of body placement or movement occurs within this course of

action. There is controversy in many fields as to how consciousness of movement happens, since it is difficult to know how an action becomes a thought; in fact it is still a mystery to cognitive scientists.⁴ Nonetheless, a dancer who is constantly sensing, moving, and re-sensing his or her body, uses kinesthetic awareness often (Kimmerle and Côté-Laurence 102).

Other Perspectives: Anthropology, Philosophy, and Women's Studies

Writings in other disciplines address the dancer and the mirror, some of which relate to my research. One anthropological study in ballet that frequently mentions the mirror and a few theoretically-based texts crossing the fields of philosophy and feminist studies were useful.

Anthropologist Gail A. Hall, in "Workshop for a Ballerina," conducted research on nine ballet schools in the San Francisco Bay area around 1977, observing forty classes and interviewing ten dancers from one of the schools. She outlines in her article several principles she observed in ballet studio culture, which were in line with my own study of a university modern dance studio. For example, she concludes that the mirror influences the ballet dancer's concept of self, particularly his or her adaptation of the mirror as reality. However, some of her statements repeat unproven presumptions about students' internal reactions. For instance, she says, "Thus, with eyes glued to the mirror for a lingering moment, a student may either privately react with harsh criticism or silently revel in self-praise," without saying how she knew this "private reaction" to be the case (207).

Particularly influential at the earlier stages of my research, and giving me confidence in my doubts about the mirror as objective training tool, was a persuasive,

⁴ See Ramachandran xvi and Hoffman 199.

unscientific essay from the periodical “Ballet International”: “Mirror, Mirror on the Wall...: Narcissism as a Danger for the Art of Dance?” by dance theorist Richard Merz. He questions the use of the mirror in dance training and discusses the mirror’s ubiquitous nature in dance studios and its tendency to be taken for granted, and argues against the mirror as objective self-reflective device. From an anecdotal point of view, Merz reiterates Duval and Wicklund’s theoretical assumption – that nobody can perceive both inside and outside at the same time. In his effort to discourage mirror use, he warns a dancer may be “falling into the mirror” and therefore develops narcissistic self-focus, ignoring other aspects of artistic development. He writes,

[The mirror’s emphasis on Self] raises the question as to whether the art of dance truly produces such a great wealth of cosmopolitan geniuses who are really able to deal with every musical, material and cultural demand fittingly without personal limits; or whether they self confidently ignore these demands and limits as the reality of the non-Self, the unfamiliar, the Other – and experience and understand the whole world simply as a background for the reflection of their own Selves. (16)

Merz inspires interesting peripheral questions to my research, such as how does the mirror affect the individual and therefore, the entire art of dance? Is this preventing Western modern dancers from looking outside the Self and becoming more diverse, expanding beyond their own worlds? If dancers learn to look away from the mirror and receive external reflection from the unknown – what Narcissus was unwilling to do – Merz suggests, they may be more broadly and profoundly rich as artists (16).

The phenomenology of dance is also related to my research, in that phenomenology is concerned with the in-the-moment act and perception of dancing, and I am looking at the perceived experience of the dance student in modern technique class with the mirror. Dance theorist Timo Klemola writes about the mirror from a phenomenological point of view in his essay “Frame, Look, and Movement.” His thoughts fall in line with the ones expressed in psychological terms by Duval and Wickland, when he writes that when a dancer looks in the mirror, both subjectiveness and objectiveness are experienced, but each is experienced separately in consciousness (14).

This dual perception relates to a discussion of some of Luce Irigaray’s philosophical concepts discussed by feminist theorist Eluned Summers-Bremner, in an essay titled “Reading Irigaray, Dancing.” This article is primarily about Irigaray’s attempt to “reconstitute the mind/body dualism” and the author applies Irigaray’s theory to her own ballet dance experience. Summers-Bremner makes a point about the psychological pressure the interplay between a physical ideal and real perceived experience may have on women in particular. She writes, “To attempt an unbridgeable gulf between ideal and reality, mind’s eye and movement, is psychologically distressing because it fails, and yet, attachment to failure is a kind of satisfaction to which women...may be culturally predisposed to lay claim” (11). Her quote from Irigaray (below) resonated strongly for me because of this hypothesis,

We look at ourselves in the mirror to *please someone*, rarely to interrogate the state of our body or our spirit, rarely for ourselves and in search of our own becoming. The mirror almost always serves to reduce us to a pure exteriority – of a particular kind. (quoted in Summers-Bremner 10)

This inability to see the experienced self or valued identity as it is, instead of as it should be, according to some other person's gaze, is what I found the mirror encourages, potentially limiting my personal development as a dance artist.

There were numerous other texts that were informative to my project, spanning a variety of other fields, such as cognitive science, psychology, neurology, and technology. Only these few appear in this writing, but more will be included as my research continues to expand.

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METHODOLOGY

It was difficult to know how to approach my research questions because of the complex nature of both the mirror and a dancer's thoughts and feelings about dancing. At first, I considered a more social science method - coordinating control groups and quantifying findings for something "provable." Then, I realized I was perhaps more curious about unique individual dancer's experience, which could be explored by talking to other dancers and analyzing my own experience further. For this reason, I chose to use an ethnographic style methodology.

Thus, I started with the premise that the modern dance classroom can be considered a type of culture, as Gail Hall did with the ballet class and Cynthia Jean Cohen Bull did with ballet and contact improvisation techniques. This "classroom as culture" perspective helps distinguish activities by people in a dance environment as non-arbitrary, or as ritualistic and learned behavior, which can be studied and analyzed. An ethnographic viewpoint of dance forms and their educational settings can be "a vehicle for investigating the powerful interrelationships of body, movement, dance, and society" (Novack 8).

The concept of culture has become more abstract because of new insights in the field of anthropology and ethnography. These fields now state culture is not only found outside of one's environment or in pre-colonized communities: it can be found everywhere. The specific definition of culture most applicable to my research is, "An invisible web of behaviors, patterns, rules, and rituals of a group of people who have contact with one another and share common languages" (Chiseri-Strater and Sunstein 3).

Considering the university modern dance classroom as one locus of culture, then, I looked at modern dancers who dance with the mirror as one aspect of this culture.

I also approached this work as a postpositivist interpretive researcher, as described by dancer-scholars Jill Green and Susan W. Stinson, in their 1999 essay “Postpositivist Research in Dance.” Postpositivists believe subjectivity is unavoidable and may be helpful in giving researchers and participants a more meaningful understanding of people and research themes (93). An interpretive researcher tries to understand how participants in dance are making sense of their experiences, in this instance, how the dancer understands his or her body in relationship to the mirror.⁵ As an interpretive researcher, I attempt to understand individual perceptions in hopes of finding shared behavior, patterns, and problems from case examples. This type of research also gives voice to the often silent participants in dance, e.g. students, and can inform those in decision-making positions who may not know the unspoken perspective otherwise. Green and Stinson also note, however, that the researcher only offers an *interpretation* for others’ consideration and findings may not always predict issues for every class context (104).

With this definition and the desire to learn dancers’ experiences with or without the mirror, I chose to do ethnographic fieldwork in the modern dance classroom in a university setting. Fieldwork in ethnography means talking, listening, recording, observing, and participating (Chiseri-Strater and Sunstein 1). This methodology seemed ideal, as it allowed me to view the dance classroom as an insider and an outsider, and to have dancers as informants. It nicely organized ways to gather experience dancing with

⁵ In fact, an example Green and Stinson suggest for interpretive research was a generic description of my project: “a theme of intense concern with physical appearance along with a theme of kinesthetic awareness” (103).

the mirror into observation, interviews, and autobiographic reflection. In this way I could explore my own experience as well as that of other dancers, while identifying ways of proceeding in future research.

I found that during the UCI Dance Department's Fall quarter of 2004, the Modern Dance Level III class offered a promising pool of informants. Modern III met five times per week and had the same instructor for four of those five days. I also knew that Modern III used the mirror. I considered the Modern III instructor's technique class structure first. I knew from participation in her class that she occasionally directed students to look away from the mirror and often gave movement combinations that faced different walls or points in the room. Because the instructor noted the mirror's presence in technique class, I thought my prospective informants might have distinct opinions about mirror use in modern and therefore some insight to my questions.

I set a course of action for my study: observe two classes with the mirror and two without the mirror; distribute questionnaires; recruit volunteers to interview about their experience; interview the modern dance professor; interview volunteers. With these guidelines I then approached the instructor for permission. Simultaneously I went through a rigorous application submission to obtain approval from the Institutional Review Board (IRB). Upon approval from the IRB and the Modern III instructor, I proceeded with the above plan.

I observed two modern classes with the mirror and two without, in consecutive order, distributing a questionnaire to the class following my fourth observation day. Questions were created attempting to capture the dancer's experience. Review of dance and other field literature, personal experience, and observation of the Modern III class

inspired the questions. (See Appendix A for questionnaire sample and results.) To such questions as, “Have you given much thought to your relationship to your dancing self in the mirror?” and “Do you use the mirror to self-correct your alignment or self-correct your moving body?,” the students were asked to rate their answer on the following scale: 1=No, not at all; 2=Very rare; 3=Don’t know; 4=Yes, sometimes; 5=Yes, a lot. Twenty-two students completed the questionnaire.

On the fourth day I also distributed recruitment material and asked for interview volunteers. Volunteers were asked to contact me via phone or email, as listed on the recruitment handout. I received six responses from this class via email. All respondents were female undergraduate dance majors between the ages of 19 and 22 with some form of modern dance and ballet training previous to my study.

Questions for the interviews addressed several themes and I started with general identification questions, such as age, technique level, style most proficient in, number of years in dance training, and then asked them to compare their experience of the two mirror and two non-mirror classes I observed. From this starting point, and with a certain flexibility to go off-course according to responses, my questions addressed some of the following themes: elaboration on questionnaire results, the mirror as training tool, their past and present relationship to the mirror, distinct memories or stories about using the mirror in dance technique class.

Shortly after the final observation day, I interviewed the Modern III professor. (See Appendix B for interview questions sample.) The interview was done in the professor’s office and audio recorded. This interview was included to obtain the professor’s experience of teaching with or without the mirror and to find how this may

have affected her teaching style. It was also to discover if the professor noticed differences with students dancing with or without the mirror.

After interviewing the professor, interviews of about one-hour took place with the six dance student volunteers and audio recorded in the dance department. (See Appendix C for student informant descriptions.)

My interview questions were greatly influenced by two works in the literature. *The Ethnographic Interview*, by James P. Spradley, provided an introduction to ethnographic-style interviews, in particular how to formulate and design my questions. The chapter “Locating an Informant” pointed out some of the interpersonal skills necessary for a good interviewer-informant relationship and led me to define my informants as “well acculturated” in the dance classroom cultural aspect of modern dancer and the mirror. Distinguishing components of an ethnographic interview, presented in another chapter, “Interviewing an Informant,” helped me analyze my questions and see if I was covering as many angles as possible to get the most well-rounded interviews.

My interview design was also greatly influenced by dance theorist Jennifer Fisher’s article “Choreographing and Improvising the Interview.” A new perspective of the interview as performance was achieved with this article and with my training as a performer, allowed familiar access to this new methodology. In addition, her example of bringing pointe shoes to her interviews of ballet dancers to help get her informants “closer to the action” and provide more descriptive responses, gave me the idea to use the mirror as a “sacred artifact” in my interviews (343). Thus, for a short time I asked the dancers to stand in front of the mirror and do a simple movement exercise and

simultaneously tell me thoughts and feelings. This strategy proved useful with informants that seemed most comfortable talking about their thoughts and feelings, and was difficult for those too shy or self-conscious to articulate their on-the-spot reactions.

After conducting all interviews over roughly a two-week period, I transcribed them and the audio recording was destroyed. I gave each informant a word-for-word transcription copy of their interview and allowed them to correct or elaborate on the entire interview on record. Only two informants talked to me in-person about their transcription. One stated she was embarrassed by how often she laughed (which was noted in parentheses) and the way she composed her responses grammatically, however she had no corrections or changes. Another said she wanted to add comments but later told me she didn't have the time because of academic and performance commitments. They both seemed pleased to have a copy for their information. The other four informants did not follow-up.

Because this line of research originated from the sensations and thoughts I had with my body in dance I compiled autobiographical information throughout the research process. Included in this material was journal writing from technique class, performance, everyday experience, and reviewed literature reflections; choreographic work, which took the form of a solo, choreographed in front of the mirror, exploring my physical non-verbal relationship with the object; and graduate coursework, such as a course I took in the department of cognitive science, which explored philosophical and scientific concepts of the mind and body, or what cognitive scientists call "the mind/body problem." The aim of compiling autobiographic material was to include my experience with the mirror and dancing because I could most skillfully interpret my own subjective thoughts and

feelings. I became another informant, as occurs in some ethnographic-style research designs,⁶ and could provide a more detailed example of the dancer experience as it relates to the mirror. In addition, self-reflection helped me stay aware of biases I was working with and any assumptions made.

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⁶ For instance, anthropologist Anthony Wallace did so in his cultural description of driving an automobile in an article titled “Driving to Work” found in the book *Context and Meaning in Cultural Anthropology* (Spradley 51).

PROJECT RESULTS AND DISCUSSION

Because the mirror tends to be everywhere in Western concert dance training environments, and many times not directly addressed, it's often presumed to be an objective and straightforward training tool. Yet, as mentioned in several dance writings, there are paradoxes in the modern dancer's relationship with the mirror. These contradictions inspire such questions as: why is the mirror used in modern dance training? What are the assumed benefits and hindrances of the mirror in modern training, specifically, and what is actually experienced by the dancer? Are a modern dancer's perception, movement execution, and development influenced by mirror use? The following section assembles results from observation, interviews, self-analysis, and the literature, in pursuit of a more detailed examination of these research questions.

The Mirror as Familiar Friend

The ubiquity of the mirror in the dance studio – its ever-present status – came up with several dancers interviewed for this project. Some of the dancers spoke about the mirror as a person might speak of a familiar friend. Barbara, a 19-year-old sophomore with eleven years of ballet training and about two years of modern, said the mirror has become so well-known to her that a room without a mirror is not a dance studio. This feeling was exemplified by her story about a ballet class she took in a studio with only one small portable mirror. The lack of the mirror had a considerable impact on her experience of the class. She described the scenario as “feeling weird” several times, which demonstrates how ingrained the mirror was to her expectation of a “normal” ballet class. She also called her previous school's ritual of turning away from the mirror one week before performance “weird.”

Eileen, a 20-year-old junior with seventeen years of dance training, seven of them in modern, stated that the mirror is “just a normal part of the culture of dance.” She said she has danced with the mirror since her first dance lesson, and it is strange when the mirror is not there. When a curtain covers the mirror in a technique class, as it did during two of the observed classes, she said she needs to adjust to the mirror’s absence both physically, receiving new visual and kinetic input, and mentally, refocusing her attention more internally. Her comments made me think that sometimes it is only through absence that the strong relationship to the mirror is realized, just like the adaptation when a well-known friend is no longer present.

An anecdote from the professor also spoke to the familiarity and expectation of mirror use in the dance studio. She told of a time her students came into the studio for class and the curtain was drawn across the mirror. One of the students took the initiative to open the curtains before class and assumed the professor wanted her to do so in preparation. The professor kindly stopped her and said, “You know, I’m keeping them closed today.” The student responded, “Oh!” with complete surprise, as if in her experience that was unheard of.

The Dancer-Mirror Feedback Loop

Before discussing the mirror as a tool, it’s useful to establish a concept about the functional aspect of the dancer-mirror relationship. From analysis of my own interaction with the mirror and statements made by dancers I interviewed, a back and forth pattern emerged and included two variables: a dancer’s visually perceived image in the mirror and a dancer’s kinesthetic, perceived feeling of her body. Because the mirror image and

the dancer's kinesthetic awareness were consistently affecting each other in a cyclical action-reaction pattern, I called this process the dancer-mirror feedback loop.

An example of the dancer-mirror feedback loop goes something like this: dancer sees his or her shoulders close to ears in mirror image, dancer sends kinesthetic awareness to shoulders, dancer moves shoulders away from ears, dancer looks in mirror at new position in mirror image, and so on. There is a general process of "look and feel and look," which is then broken up into specific parts, such as, "look at image, feel incorrect alignment, adjust body, look at image again, re-feel correction," etc. Dance theorist Timo Klemola describes this back and forth process from a phenomenological point of view, "...the dancer moves from the lived body to the objective body through a mirror and back again to the lived body and from there again back to the objective body through a mirror, etc" (14). Anthropologist Gail Hall calls the interaction between a dancer and the mirror a "tacit conversation" that happens the moment the dancer enters the studio (205).

The "conversing" variables, external mirror image and internal kinesthetic awareness, are not easily distinguished as separate entities for the dancer using the mirror. In other words, the dancer's perception is that the mirror image and physical feelings are not disconnected. It is only through analysis and conscious attention to the dancer-mirror relationship that two interacting variables are revealed. Hall finds this in ballet as well, stating that the reflexive process, the evaluation of the body through the mirror of disdain or approval, is repeated so quickly that action and reflection seem to occur simultaneously for the dancer (205). Regarding this cognitive process, I found useful Duval and Wicklund's theoretical assumption about individual consciousness and

attention to internal and external stimuli. They state that human attention goes between internal and external awareness and this oscillation is rapid enough to *seem* simultaneous, but that it is impossible to direct attention toward an external event and an internal aspect at the same time (3).

To help clarify this process further, the dancer-mirror feedback loop can be seen to correspond with a detailed dance student learning model developed by Kimmerle and Côté-Laurence (51-65). They write that motor or movement skill learning can be put into a simplified information-processing framework described in three stages: input, internal processes, and output. Kimmerle and Côté-Laurence then break this framework into even more stages to outline the steps encountered while learning a dance skill specifically.

Attempt

1. Pick up relevant cues
2. Form a mental image
3. Retrieve/construct a motor plan
4. Execute the skill

Correct

5. Monitor the performance externally and internally
6. Assess and reprogram the motor plan
7. Attempt the corrected skill

Perfect

8. Practice with ongoing monitoring
9. Revise the performance
10. Produce a skilled action

11. Combine the skill with other skills, music, and dancers (61)

I found that the dancer-mirror feedback loop most often takes place in the Correct stage, which includes external and internal assessment and correction, and the Perfect stage, which is a repetition of the Correct stage but with other skills added. This is where, after mastering the basic physicality of the movement, the dancer might be looking in the mirror at his or her body, assessing its placement, shifting where necessary according to the mirror image. Kimmerle and Côté-Laurence state that during the Correct and Perfect stages a dancer works between what motor learning theory labels intrinsic and extrinsic feedback. Extrinsic feedback in motor learning is described as information provided to the learner by an external source such as the instructor, the mirror, or video. Intrinsic feedback is described as the sensory information one receives when producing a movement, i.e. kinesthetic awareness. This is similar to Duval and Wicklund's description of internal and external awareness and provided more support for the dancer-mirror feedback loop occurrence at this stage of the learning process.

The dancer-mirror feedback loop is at this point a useful way of conceptualizing, but still in process. I use it to help explain several dancers' interaction with the mirror. An added complexity discovered from self-evaluation and dancer interviews, is that the dancer-mirror feedback loop also includes other feelings, emotions, and teacher corrections. I apply this as a preliminary model to help explain a small part of the cognitive actions that might occur for the dancer looking in, and dancing with, the mirror.

Mirror as Modern Dance Training Tool

The primary assumed use of the mirror as a tool in the above dancer-mirror feedback loop is for self-correction of the body and self-adjustment of choreography on

the body. Modern dance is a visual performing medium and this emphasizes certain characteristics. “Visual” means something to be looked at or seen with the eyes. “Performing” signifies an audience or a living and moving creation that can be watched by another. The mirror’s ability to replicate the dancer’s visual performed dance supports its use as a tool toward a performance ideal. For example, Faith, a 22-year-old third-year student who feels equally proficient in ballet and modern, said her past modern teacher used to point to the mirror and say, “This is a means to an end.” For Faith this meant that if she saw something out of place on her body, she should fix it and “keep an eye on [herself] to see if [she] was doing everything right.” The “end,” she said, was better placement and technique. Kimmerle and Côté-Laurence reiterate this common assumption, writing, “The advantage of the mirror is that it provides instant visual feedback on the correctness of a position and body line...the mirror is useful for basic body alignment” (196).

A basic body alignment, or ideal, seemed to be what several modern dancers observed were self-correcting and adjusting towards. For instance, in one of the mirror classes, a student executed a lateral layout position facing the mirror, with her left leg on the ground, right leg extended straight side, arms overhead and torso stretched horizontally to balance the right leg. At first her ribs were protruding forward and her lower back was slightly hyper-extended. While she studied her position in the mirror, she pulled up more on her standing leg and lengthened her iliopsoas, or hip flexor, which released her lower back. She also engaged her front abdominals to pull in her ribs. She seemed pleased with this adjustment, and appeared to have greater physical stability with the correction.

Hall's observation of a ballet dancer looking in the mirror is similar to the above description. She gives a detailed example of the dancer-mirror feedback loop which includes levels of actions like facial expression and eye placement. Although Hall is talking about the ballet class, I saw this in modern as well. She writes,

At the barre, a dancer extends her toe, tilts her head, looks at pointed toe, then at torso in the mirror while lowering her eyebrows and pursing her lips. She then looks directly at extended leg while pointing the toe harder and further rotating the leg outward from the hipsocket. The dancer again looks in the mirror. Her eyes sweep from her shoulders down to her toe. She then relaxes facial muscles and exhibits a slight smile. (205)

Self-correction toward an alignment ideal was discussed in all of the dancer interviews. Faith, for instance, noted that the mirror often aids in the many levels of bodily responsibilities found in technique class. She said she has so many things to think about, like rhythmic accuracy or sequence of choreography, that the dancer-mirror feedback loop helps remind her to fix those alignment problems she may neglect because of attention to other aspects of technique.

Barbara gave a unique dancer-mirror feedback loop example for self-correcting jumps in center. She said she often can't feel if her feet are pointed properly or not, and the mirror shows if her feet are pointed and then she corrects accordingly. The mirror, she said, shows her things she often cannot feel.

These examples support the presumption that the mirror is used as a self-correction tool.

Complications to Mirror as Objective Tool

As I document individual examples of the use of the mirror for objective self-correction, dichotomies abound and I am reminded of the varied points-of-view in the dance literature. In the above example, for instance, the mirror helped Barbara point her feet and this was immediately beneficial to her technique, but it was strange, she claimed, not to be able to *feel* her feet and to instead rely so heavily on the mirror to know what her feet were doing. This raises many questions, such as, what are the long-term repercussions of Barbara's reliance on the mirror? And, how does she feel her feet when the mirror is not present?

What also seemed problematic when considering the mirror as corrective tool was the dancer's ability to successfully maintain alignment corrections applied from the dancer-mirror feedback loop. Dancers I interviewed often described being able to correct their bodies using the mirror initially, but then had difficulty retaining that correction kinesthetically. Carol, a 22-year-old second-year, most proficient in modern, said, "I end up correcting [a misalignment] by sight [in the mirror] and then I end up going back to how it was before, eventually..." Denise, a dancer with only two years training in ballet and modern, described an alignment issue not easily preserved after one episode of the dancer-mirror feedback loop. She talked about the extreme hyper-extension in her lower back, what she called a "sway back." She said she usually can't feel her sway back and is often surprised by her mirror image and how out of line her back is. She said even after she executes a dancer-mirror feedback loop pattern, she often returns to the sway back later in class and has to use the mirror to correct her alignment again.

Though the dancer-mirror feedback loop corrections were sometimes not maintained the first, second, or twentieth time, this repeated process may eventually make a correction permanent. Still, I wondered, could mirror reliance impede the kinesthetic feeling of change?

“It’s a useful training tool, but...”

Almost all dancers and dance teachers I spoke with, both in and outside of this project, expressed multiple conflicts in their own experience with my research topic, usually musing, “I think the mirror is a useful tool in training, but...” A major testament to this from the interviewed dancers was their reference to the mirror as a foe that worked against their good intentions. “The mirror is just evil,” Denise said in her interview. She said she never looks in the mirror to see how wonderful her dancing is, only to see her mistakes and how bad she is – implying that the mirror had a vindictive, uncontrollable power over her. Carol also said she rarely reacts to her dancing mirror image with “Wow, I look so beautiful!” Rather it usually is, “Hmmm that was not good...” The mirror represented a despised and bitter critic as well as the familiar friend described before. These conflicting associations also counteracted the strong passion and love most of these women expressed for dancing.

So, how might the mirror be working against modern dance training exactly, in addition to those ways already suggested? What are the various answers that followed the “but” above? What does further dissection of the dancer-mirror feedback loop reveal, specifically in modern dance training? The following section begins to uncover other multi-layered responses to questions about mirror use in the modern dance classroom.

Feeling versus Seeing Movement

In many modern dance styles, an acute internal feeling and understanding of the dancing body to communicate abstract and subjective human states is deemed important. Several dance theorists write about the significant impact of internal feeling in modern dance, which is classified in a few different ways over the art form's history. For instance, dance theorist Elizabeth Dempster describes modern and postmodern dance in her essay addressing the ways in which some Western theatrical dance styles have defined and redefined the body. She writes that common to the contrasting styles of modern dance that developed during the turn of the twentieth century was a concept of "the body as a medium and vehicle for the expression of inner forces." The spatial and temporal structure, Dempster states, of some of the early modern dances, was based on emotional and psychological imperatives – the governing logic was not pictorial, as in ballet, but affective (28). She also implies that in some postmodern dance developed later, inner force was considered, except it was more often referred to as an intelligence or integration of "perceptual processes" that informed the physical dance, versus an emotional impetus (32). In the same way, Susan Foster's essay, "Dancing Bodies," focuses on the formation of bodily consciousness situated in the cultural and aesthetic moment of three dance techniques: ballet, modern, and contact improvisation. Throughout her description of the modern techniques of Isadora Duncan, Martha Graham, and Merce Cunningham she supports a shared emphasis on the internal. Foster writes that dance transported Duncan "into an evanescent realm of feeling-filled forms" (245). The dancing body manifested "naturalness" for Duncan, she writes, and a "harmony with the self." Graham's expression of inner forces was different, though, and

Foster states that Graham's choreography was closely tied with psychological developments of the time, i.e. Sigmund Freud, and "deep conflicts of the human psyche" (246). Cunningham, on the other hand, shifted the internal focus away from the emotional or psychological impetus, Foster suggests, to the physical kinesthetic awareness and body as instrument notion. She writes, "His conception of the dancing body fuses body and self by immersing the self in the practical pursuit of enhancing the body's articulacy" (248). The changed internal feeling state seen in postmodernism to follow, probably greatly influenced by Cunningham, is well summarized by Cynthia Novack in her book *Sharing the Dance*. Novack calls postmodernism "experimental dance" and clarifies the shift to yet another kind of internal kinesthetic feeling, "For many experimental dancers during the '60s and '70s, inward focus was considered more natural; outward focus was seen to indicate a major concern with pleasing an audience, with presenting an (artificial) image of oneself rather than the real, or authentic self" (135). So, although choreographers of this time, including Cunningham or Alwin Nikolais, may have been viewed as "robotic, unfeeling, and inhuman" by audiences, they were of an aesthetic trying to represent a more pedestrian, shared human self than an artificial pictorial character for an audience (136). It must also be said that a multitude of approaches exist across the entire history of modern dance to the present day, some with contradictory perspectives. Therefore, an internal focus – emotional, physical, or otherwise – is distinguished as *part of* the modern dance art form and cannot necessarily be applied to the entire genre.

The modern class observed had lineage from the above traditions and a considerable emphasis on kinesthetic and mental feeling. Indeed, a balanced triad of

form, emotion, and kinesthetic feeling seemed optimal for the dancer in this technique course. For instance, the professor, who trained extensively without a mirror as a child in a small town in Northern California, described how she approaches students and tries to understand on a “feeling level” how they move. She said she asks each class specific questions like, “How many of you learn by seeing pictures in your mind? How many of you learn by hearing a song in your head? How many of you learn by how something feels? And how many of you learn by trying to look at my feet and copy it?” After receiving answers she tries to offer them additional internal or creative (non-mirror) strategies to learning in hopes of contributing to more “feeling-thinking dancers.”

Several dancers interviewed, even with the above well-thought-out pedagogic approach, said their attention to feeling was often complicated by the mirror’s emphasis on outside appearance, “the look.” Between the two dancer-mirror feedback loop variables – look and feel – the look was almost always given more attention. That is, in one cycle of the mirror-feedback loop most of the time was spent perceiving visually and very little was focused on conscious kinesthetic perception. The dancer-mirror feedback loop appeared lopsided and detrimental to the kind of kinesthetic feel presumed valuable to the modern dancer.

A prime example of this imbalance was found when I asked the dancers how they compared the experience of dancing with the mirror versus without for the observed classes. Most of them said in the mirror class they were more focused on the look of the movement, whereas, without the mirror, the feeling of movement became more prominent. For instance, Eileen said that with the mirror she got stuck on what she was doing and what the result of her movement was, versus how she was doing the

movement, how it felt in the moment. The mirror presented static images and made it difficult for her to develop a flow because she was constantly checking her image. Carol felt the non-mirror classes were more enjoyable, because she said the mirror made her think about the movement too much and analyze the product of her movement. Without the mirror, she said, she just felt and experienced her body in motion.

Similar responses emerged when each dancer faced the mirror, did a simple tendu, and talked about what they were thinking and feeling, and then did the same without the mirror. When in front of the mirror, almost all of the dancers talked about their appearance first: what their hips were doing, commenting on their clothing, etc. But when they faced away from the mirror most of them talked about how the movement felt: one talked about grasshoppers because of the way her legs felt rubbing together in the tendu; others talked about feeling their core and abdominals or feeling where their weight was.

Dancers' Zombie-like Stare at the Mirror

This emphasis on the look may create what many of the dancers interviewed mentioned and what I saw during observation – a sort-of zombie-like stare into the mirror, particularly during center work. I noticed some of the dancers staring in the mirror with a blank, eyes glossed-over facial expression and I felt slightly voyeuristic, a witness to a private self-absorbency.

Faith said, in her interview, when the mirror catches her eyes she begins to “stare,” whereas without the mirror her focus feels “freer.” She said it was difficult to understand: “I don’t know how to explain it, because I was doing it today and I was zoning out. I was doing tendus and staring at my feet.” A habit of staring into the mirror

had a particular history with Faith. Once, she said, while studying at a professional ballet school, she was asked to stand at the barre sideways to the mirror, in profile, in order to be vigilant about alignment issues. Yet, she said she was later yelled at for staring at the mirror, even though she was asked previously to use it as a tool. This again hinted at the mirror's complexity; with the contradictory moral in this case being "you can use the mirror, but not too much!" (also referred to in dance texts as "mirror overuse").

What produces this zombie-like stare? Carol said she doesn't think about anything interesting and doesn't put any thoughts behind what she's doing when she looks in the mirror. She suggested the mirror stare happens because her mind is blank or at least without any creative or imaginative thoughts that might produce a more interesting or animated expression. She replicated her stare when describing this sensation – her lips went straight, her eyes became void of inner life but intently focused on a point in front of her and beyond me, her facial muscles changed from active to disengaged, neither relaxed nor tense, just blank. Her expression reminded me of some kind-of human robot clone from a bad sci-fi movie. She suggested this zombie-look is also slightly sad or dejected because the concentration on intricate, specific negative criticisms of her body usually cause her to stare.

These frequent self-criticisms were also described as hypnotic by Carol, who said she is hyper-critical with the mirror. She described that with the mirror she will either hone in on one or bounce around to several different, specific details of her body – "parts and lines." Her criticisms of minute features occur repeatedly and quickly, becoming a hyper-speed dancer-mirror feedback loop. Combining this description with her zombie-stare above, she implied that she might become mesmerized when her loop process works

quickly. It seemed that something about a repeated, fast rhythmical loop might act like hypnosis for her.

Because Eileen realized her modern instructors did not like her to stare in the mirror, and because she found herself continually doing so, she created what she described as an animated engaged facial expression meant to present a mental and physical focus – what she called a “false focus.” She also called it a “false attack feeling” or a “false focus façade.” She said she does this false focus by presenting the movement with both her face and her body; for instance, she described doing a tendu with particular placement of her neck, chin and nose – exhibiting a “powerful” facial look to accompany the tendu executed by her legs. She said this is primarily done when she is either tired but needs to present herself as if awake and internally attentive, or if she cannot maintain her balance or her best physical performance quality. Then she uses her false focus to present a confident stable physicality with her face, even if her body feels off. Yet, from my perspective, this false focus seemed similar to the zombie-like state.

This tendency to “zone out” may be related to what the modern III instructor referred to in her interview. She talked about getting the dancer’s whole body involved and particularly noted use of the face. The instructor described the face as anatomy and said she trains dancers to understand that the face is not strictly social, and that it must be utilized and paid attention to as much as every other part of the body when dancing. Although she didn’t say specifically, the instructor might use this idea of face as anatomy to prevent dancers from staring into the mirror.

Use of Imagery in Modern Technique Training

One strategy used in modern dance training to improve alignment and performance quality (perhaps to combat the mirror-stare as well) is imagery – the use of abstract visualization or mental metaphors.⁷ Dance educator Irene Dowd, in her description of imagery use, suggests why imagery has proven useful in the modern dance studio. She says that with enough mental stimulation, physical and mental patterns might change permanently. She writes,

In simply visualizing you are nonetheless activating the precise neurological pathways that may allow you to accomplish your full movement goal. You are actually establishing new habit patterns in your nervous system which can replace the old ones you no longer desire. (5)

A useful imagery practice that enacted physical change and altered a “habit pattern” was described by Eileen. She talked about the instructor’s verbal cue to insert her ribs into her back, to help engage and open up her middle and lower back area. Eileen said she used an image, or what she called a texture, to attain a more open back. She described her imagery as a “swoosh,” a backward movement.

Eileen said the mirror could not help her with the above correction because she couldn’t “get past” her own image when using the mirror. Mirror presence often limited the interviewed dancers’ visualization possibilities. Other dancers interviewed described the actual image in the mirror as the maximum information for their visual system to process, noting an interesting conflict between vision (with the eyes) and internal visual imagery (with the imagination, without the eyes). For Carol, imagery was used to look

⁷ Dance educator Lynette Overby conducted research in 1990 on imagery use in dance training with forty-four dance teachers and a beginning modern dance class (setting not stated), and found that imagery is used often with beginning, intermediate, and advanced dancers (form not specified), see Overby 26.

past the studio walls, and put herself in another imagined environment. She said it was difficult to look past the mirror's replication of the entire room, its color, movement, and multiple visual stimuli. Barbara talked about the benefit of a blank wall. She said, "In the mirror you see all the people in the room and everything else – there is so much visual distraction – but if there is just a blank wall, it's like a blank slate before me. I can imagine stuff, imagine what's there, instead of stuff actually being there."

Faith said her use of imagery is compromised by getting continually distracted by watching her own mirror image. She talked about the mirror catching her eye during class and then holding her attention, even when she doesn't mean to look at herself. She said she'll just catch a glance of her body doing movement and then stay with that image for a while. Or, she will make herself turn away although she wants to keep looking. She talked about trying to trust herself to get the movement without the mirror, suggesting she has to trust her body and mind and not the mirror as an imagery substitute.

Mirror as Illusion

The enigmatic complexities of the mirror are well stated by dance educator Jan Erkert in *Harnessing the Wind*, when she discusses the pairing of mirror illusion and dancer,

[The mirror is a] two-dimensional version of self [which] gives scanty information about the living three-dimensional person... The mirror reports a skewed version of every pound and every flaw, and dancers adapt faulty visions of their body. (167)

In my research, the most prevalent aspect of mirror illusion and dancer/dancing perception was a mismatch between what a dancer feels and imagines his or her

movement will look like, versus how it is sometimes perceived in the mirror by that same dancer. It is a curious assumption that what is felt by a dancer will match what is seen in the mirror, when vision and conscious perception of feeling come from two different human functions. That is, it seems strange that most dancers assume that their kinesthetically sensed movement, which mysteriously creates an internal-only and imagined result of felt movement, and movement which they visually perceive with the eyes on an outside object, will perfectly match. In other words, there is not necessarily a logical correlation between how a dancer sees herself dancing in the mirror or video and what she feels. Sometimes there is a match, which then leads the dancer to believe this is always the case. But, most of the interviews revealed a mismatch between what it *felt* like doing the movement and what they *saw* in the mirror. For instance, Denise said that, "...it's more liberating to feel the movements instead of see them, because sometimes you feel good about something, and then you see it and you're disappointed 'cause it's not what it feels like." These presumptions that feel equals look often left dancers disappointed and insecure about their technique and dancing.

The mismatch concept was also found when the mirror image was described by some of the dancers interviewed and in my own experience as "me, yet not me." Barbara Sellers-Young, dance educator and theorist, describes her feeling of disconnect between body and image, familiar and unfamiliar, in an essay titled "Somatic Process: Convergence of Theory and Practice." This article includes her experiential investigation of dance training, perception, and the imagination, in which she realizes (after training in dance forms of two other, non-Western cultures) that her body concept was segmented when training in Western concert dance, particularly in front of the mirror. "Trying to

become the image in the mirror [in dance classes],” she writes, “I found that this education led me to distrust my own body, to experience it as a set of disparate parts – the image was not myself, but rather someone else” (2). An extreme example of disparate “me/not me” parts was given by Denise. She said she chose to stand in the middle of a flamenco class to follow other people in the mirror. She couldn’t look directly at the people in front of her or the teacher would notice she was looking down at their feet. So she searched the mirror image for an adept student to follow. While searching she looked at one pair of feet and said to herself, “Oh my god, she has no idea what she’s doing! Totally stop looking at her!” She went to the next person and continued with the class. In a few moments she checked back in with the feet she had looked away from, and the feet were doing everything wrong. She said again to herself, “She doesn’t know what she’s doing!” At that moment, she suddenly looked down at her own feet, looked back in the mirror, and realized they were her feet! Obviously the “feel” of her feet did not match their “real” image. Or perhaps her visual focus was so intent on finding another pair of feet, her kinesthetic sense was completely neglected.

Although this research isn’t about video image, video can be seen as a type of reflection when dancers either record themselves or are recorded by another and then watch and analyze the resulting footage. This process was occasionally described by the dancers interviewed as producing similar consequences as the mirror mismatch above. For instance, Denise talked about seeing herself in ice skating competitions that were recorded on video and said she felt beautiful on the ice but didn’t think the video lived up to that feeling. She said she had to turn the video off because it ruined the memory of what the motion felt like.

Adriana also experienced a mismatch between her feeling and a video, but with a more positive result, saying,

I don't know if I know what I look like dancing because, although I am very critical of myself, I am sometimes surprised when I watch myself on video. I recognize my little habits, but I also sometimes think, "That's not as bad as I thought it was!" So I don't really know if I truly know what I look like when I dance.

Self-image, the modern dancer, and the mirror

Many of the above topics might be suspected of tampering with a dancer's sense of self. How do the above uses or repeated uses of the mirror affect dancer self-confidence or psychological well being? The extent to which dancers suffer negative self-esteem as a result of mirror use is beyond the scope of this thesis, but I want to suggest that three issues that overwhelmingly came up in my research affect self-confidence. They are: body image, anxiety, and narcissism. Self-confidence is rarely *directly* addressed in the dance studio and appears significantly influenced by mirror use in training. In her extensive experience as dance counselor at London Contemporary Dance School, Julia Buckroyd finds pre-professional dancers often have lower confidence levels compared to similar aged non-dancers. In her book she touches on some dancers' psychological aspects that I found greatly influenced by mirror use. She writes,

It is a sad fact that many dance trainees...have a confused or disturbed sense of body shape and size...they have learned to override the signals from their bodies so that they are unable to identify consistently such

sensations as pain, tiredness or hunger; they feel alienated from their bodies and talk about parts of their bodies as though they had no identification with them...they have little sense of their bodies' capacities and are often engaged in a frantic struggle for 'control' of a body that seems to belong to someone else. (14)

The following examples, in reference to the mirror, address some of the issues Buckroyd writes about.

Body-image

Body image – “the attitude we have of ourselves, our body concept” (Radell 507) – was a consistent issue discussed by the dancers as a part of the dancer-mirror feedback loop. Body image has been discussed and of concern in dance literature and education for several years now. What I found troubling in my research is how frequently the idea of negative body image seeped into the dancer-mirror feedback loop. The way the dancers interviewed objectified their own bodies was disturbing.

Several dancers said they criticize clothing or hair during class with the mirror. I also saw considerably more clothing and hair adjustment among the dance students during the mirror classes versus the non-mirror classes. Adriana said, “The mirror helps me correct myself. But I think the mirror is also bad, because I end up looking at other stuff, like how my clothes look at that time or if my hair is all messed up from working on the floor...”

Several dancers talked about seeing themselves in leotards and tights, most often in ballet, but occasionally in modern, and how this exacerbated body image issues for

them. Denise said she hated seeing her body in a mirror every day and made specific reference to what she wears and how it makes her feel vulnerable:

We're not looking at ourselves in a mirror in a prom dress with our hair and makeup done, we're in pink tights and a leotard and our hair is back so all of our acne is exposed. Sometimes I wonder if I were an average person, who didn't have to look at themselves in a leotard every day, if I would diet so much or be so crazed about the way I look?...I wish that I didn't have to see my body in a leotard and tights, even at my thinnest day ever, I still don't want to see it.

Carol also had a highly critical description of herself when looking in the mirror, saying, "I always feel like I'm a really short ogre troll creature..." Although she said she has felt this way since childhood, looking in the mirror at her taller classmates now intensifies this severe self-criticism.

I also found body image issues to temporarily overwhelm my own dancer-mirror feedback loop at times. In one class in particular, the mirror image of my hips bothered me – they appeared wider and fuller than the last time I saw myself in the mirror – and I found it difficult to get beyond the annoyance of the image in the mirror to function objectively and use the mirror for self-correction of alignment or to enhance performance quality. I noticed my mood changed; I became angry and hadn't been angry before the class. My anger severely affected my ability to focus and function. I was eventually able to re-focus on alignment and get beyond the semi-obsession with the body image issue, but it took a significant conscious effort to rationalize my thoughts and realize I was becoming distracted from other important aspects of the technique class.

Narcissism

The practice of daily staring into a mirror might reasonably bring to mind the myth of Narcissus, a Greek youth who fell in love with his own image reflected in a pond. Indeed, Erkert writes that daily staring into the mirror might lead to narcissistic tendencies (167). On the other hand, these negative body image issues with mirror use may counter-balance any threat of narcissism for the dancer, according to dance theorist Susan Foster: “The frequent use of mirrors in learning to dance promotes a form of narcissistic enthrallment...,” she states, “but this is usually mitigated by the tendency to focus on, and criticize, bodily inadequacies” (240).

I observed narcissistic tendencies in the modern class. A few students repeatedly gazed in the mirror, so much so that I classified these women as “mirror-focused dancers.” No matter what they were doing – walking, standing, or complicated movement phrasing – these dancers couldn’t seem to get enough of their mirror image, sometimes slyly sneaking glances out of the corners of their eyes. They were so attached to the mirror that during the non-mirror class, when the professor said to face any direction to do a warm-up combination, they both performed in the direction of the covered mirror, perhaps indicating a dependency on mirror facing.

Then again, psychoanalyst Joan Lachkar, in an essay exploring the interrelatedness of dance and psychology and the value of inner experience for dance students, points out there can be both pathological and healthy narcissism. Her clearest example of these two opposing concepts is found in the following statement: “Healthy narcissism occurs when the emphasis moves away from grandiosity, from ‘look what I can do!’ [pathological narcissism] to that of wholeness, integration, excitement and

passion” (27). Later she concludes that healthy narcissism can aid strong technical and artistic performance, whereas pathological narcissism may thwart growth and development. Therefore, a conclusion cannot yet be made about whether the dancers observed were engaged in “good” or “bad” narcissism, and whether narcissism is an issue of concern for dancers at all.

Anxiety

The dancers interviewed expressed varying amounts of anxiety with mirror use. Denise alluded to the mirror as a cause of constant anxiety that might otherwise go consciously unnoticed. When talking about one of the observed non-mirror classes, she said she felt relieved when the mirror was absent, not even knowing at first how much. Only when the mirror was re-opened for the next class did she realize the difference in emotion and how anxious the mirror made her feel. Another example was given by Eileen who spoke about a modern dance class where she did a combination facing away from the mirror. She said she felt less anxiety facing the blank wall: “I didn’t have to look at myself so much and I didn’t have to worry, it was about feeling, feeling the movement...”

The reflection of peers in the mirror, and their potential criticism, was a significant concern among dancers too. Adriana described a jazz class with a center movement combination, which included some improvisation. After the class did the combination facing the mirror, they repeated it facing away from the mirror, and the teacher asked if they felt anything different. Many of the dancer’s classmates said, “I felt freer because nobody’s eyes were watching, I couldn’t see anybody else. I didn’t care what anybody else was thinking about me.” These comments implied the dancers felt

they were being observed and analyzed by their peers when facing the mirror. The dancer agreed with her classmates. She said that she knows, logically, her classmates are not thinking about what she is doing when facing the mirror because they have so many other things to think about. Even so, she said, when the mirror is present, there is a feeling or sense that she is being criticized by her peers.

The modern professor interviewed also said in her extensive teaching experience she senses that a comparison with other dancers exists for students using the mirror. She said, "I'm guessing that there could be a fair percentage of dance students who are distressed...by the comparison of their image to someone next to them."

Training in a Dualistic Environment

The examples given by dancers interviewed and literature references portrayed the mirror as friend and foe, me yet not me, good and bad, emphasize the look of the body versus the kinesthetic feel. The repeated theme of opposing elements suggests the mirror creates and fosters a dualistic environment and, potentially, dual-thinking dancers as well. The mirror often instigated divided perceptions into "two opposed or contrasted aspects."⁸

Sellers-Young directly addresses dualism in her essay and says she did not experience a unified body until she began studying African and Japanese dance in which no mirror was present. I found the following quote resonated with my own experience and that of the dancers interviewed in terms of being conceptually split. She writes,

In modern and ballet classes, I stood in front of a mirror and watched my body from the outside as it worked to match the physical illustration and verbal instructions of the teacher. I was an image in the mirror, an object

⁸ Oxford English Dictionary, Eleventh Edition (dualism)

attempting to achieve a particular aesthetic. Even when I moved away from the mirror, the memory of the objective reflection was still part of my subjective experience. I was dancing the visual image of a form. (2)

In African and Japanese dance forms, however, she used “all [her] sensory modes to learn the dance” (2). She says in these training styles she felt a total engagement with the environment, particularly because no mirror was present. Without the mirror, she says she was fully incorporating the modes of understanding, of process, and not “end-gaining,” as defined by F. Matthias Alexander (the somatic innovator after whom “Alexander Technique” is named). For her, this discovery process was more successful because she felt she attained a more beneficial, unified mind and body experience. One of the interviewed dancers, Carol, also mentioned a memorable holistic experience several years ago when taking an African dance class, without using the mirror. She said she paid more attention to the experience of dancing because the class focus was on the community of dancers and the drummer, rather than the outward appearance or visual product of the movement.

Given the fact that mirror use in Western concert dance forms inspires many types of dualities, are they in fixed positions? Is there an eventual dynamic balance between opposing forces found with mirror use or do they remain separate throughout a dance career? Dempster sheds some light on these questions in her discussion of modern and postmodern dance, though she does not refer specifically to mirror presence. She states that even if opposites exist, the act of dancing itself provides a potential for unity or a moving between to create a whole, non-Cartesian way of being:

In moments of dancing the edges of things blur and terms such as mind/body, flesh/spirit, carnal/divine, male/female become labile and unmoored, breaking loose from fixity of their pairings. This vision of dance is not utopian but a felt experience, occurring fleetingly, elusively, in many styles and occasions of dance. (35)

It could be said the dancer, in relationship to the mirror specifically, similarly learns to move between opposite poles, such as “me/not me,” “body feeling/mirror image,” or “flesh/object.” Maybe, then, mirror use in dance training presents only one of many opposites for the dancer. Possibly, over time and with practice the dancer finds a way to embody a unity or balance between continually encountered opposing forces.

Dancer-Mirror Evolution

In line with this blending of opposites, some of the dancers interviewed described what seemed to be an evolving focus away from the mirror as they matured. Faith, who trained at a professional ballet school a few years before university, said she is making a conscious effort to distance herself more from the mirror, becoming increasingly aware of not using it since she started taking modern at UCI. She also said a year off from intense training helped her notice a change in her relationship with the mirror. Before UCI, she took only about one class per week. Without the daily use of the mirror, she said her obsessive or dependent need for it weakened. I also found this to be the case when I took some time off from dance training because of a leg injury. I started practicing yoga, where there was no mirror. I felt during this time that I was less critical of my body, more accepting of its imperfections and thought less about how it looked and more about how it felt. It's difficult to generalize feelings from an entire six-month

period, and to know if it had to do with the mirror, or with doing yoga and its meditative practice, or with some other feeling that dance training inspired in me. But somewhere along the way I noticed something about viewing my entire body in form-fitting clothing in the mirror in my daily dance classes, imprinted a visual representation of my external body which stayed with me, in memory, outside of the studio. I found I conceptualized, or viewed with my “mind’s eye,” my body from the outside more frequently and this had a negative influence on my felt, kinesthetic body. When I returned to the dance studio after my brief hiatus, I renegotiated my association with the mirror. I felt a small but significant difference, slightly apprehensive about using the mirror because of its potential effect on my psyche. This subtle change greatly contributed to my choice to pursue this research topic.

Carol, the dancer who said she becomes hypnotized by criticizing details in the mirror, suggested her repeated use of the mirror may weaken its effect on her over time. She said,

Maybe the more I can stare down the mirror the more comfortable I [will] get...[The mirror] can be detrimental to the fact that I get really down on myself, just because [I’m] staring at myself, but I think at the same time it makes me more comfortable with [the mirror] cause [I] get, I don’t know, after enough of something [I’m] just kind of like, ‘okay, it’s fine, I accept whatever.’...It’s a maturity thing...[I’m] more composed about it.

Possibly the dancer eventually accepts the criticisms, illusion, and contradictions the mirror reflects and becomes indifferent to the mirror. The mirror becomes more like the ignored foe, rather than accepted reality.

A colleague who has danced professionally told me about her current relationship with the mirror, while discussing my thesis over dinner. She said during modern technique training, she doesn't use the mirror much at all anymore. She is sick of it, she said, having been in front of the mirror so much over her twenty-or-so-year dance career. She said in yoga, she has found solace in feeling her body only; abandoning *any* attempt to conceptualize what her body looks like based on the mirror or what she feels.

Training Techniques Away from the Mirror?

What I found in the interviews was that other layers – such as internal complexity, artistry, problem-solving skills – considered valuable to the modern dancer, and therefore important to develop in training, are often mitigated by the mirror. The effect was not always negative, again pointing to the mirror's dichotomies, but the majority of experiences seemed to complicate training and create an outwardly focused modern dancer.

The modern technique professor I interviewed talked about what she values in a dancer, communicating a desire for good improvisational and choreographic techniques:

[For my dance company] I choose dancers that are very whole, and they are not what most people would consider, technical looking dancers....Their bodies are real different, all different sizes and looks...it's the theater of it that I really like, it's their intensity and they're very good improvisers and they're all choreographers. It's like [I have] a company of grown-up choreographers, who are all really individualistic and interesting...

She said she is nourished by seeing a dancer who is completely engaged in the act of moving. If a dancer is only technically perfect, “solely pictorial,” it will hold her interest for a short time; whereas a multi-dimensional dancer, one who is feeling the movement and expressing some inner life in the moment, will hold her interest much longer.

Several tactics from the professor’s technique style, some already mentioned, like asking students how they learn or considering the face as anatomy, seemed to help train these modern dancers away from the mirror and toward the multi-sensory dancer described above and so often desired in the modern dance profession today.⁹ Some of the dancers interviewed said that the professor’s practice of turning the class away from the mirror helped them find a balance between the look and feel of their body. The professor also said she designs movement for her classes that almost never directs the eye or performance to the mirror. She said she might ask students to send their visual focus in the direction of a leg on a high diagonal or along a curve of the spine; request an inward gaze or more introspective attention; or ask them to scan the floor as they do an under curve with their torso. This type of movement also gets them out of the habit or habitual affectation of looking in the mirror, she said. The frequent mention of imagery distraction from the mirror by the dancers interviewed suggested imagery is also employed in this class as a means to lessen mirror use in favor of a greater reliance on internal creative feeling. To me, these tactics seemed beneficial to a more holistic

⁹ In a recent (May 2005) conversation with dance educator Claudia Gitelman about modern choreographer Alwin Nikolais, she said that teachers at the Nikolais School recognized the multi-sensory dancer (and presumably other dance artists during this time and postmodernists did as well). Yet, mirror absence is often not the norm in university settings. As a result of this conversation with Gitelman, I also realized that my lineage was in the Hanya Holm and Nikolais tradition (where the mirror was rarely present) and the impact this had on my research.

modern dancer, one that has multiple intelligences and utilizes other resources for external awareness.

Another resource mentioned in the dancer interviews was a video camera. For instance, Carol said video worked as an alternative reflective device for her to self-analyze movement and was more helpful for her than the mirror. She said,

If I can't get a correction in my head, I video myself doing the movement because with video I am not trying to see it and do it at the same time. I'm just focused on what I'm doing and the video is over in the corner doing its job of capturing the visual element. Then I'll watch the video and see what I've been doing and somehow seeing it that way works better for me.

Perception of a video image is not without its own contradictions, as seen in the video mismatch examples given earlier, and will be considered in future experiments.

Even after months spent on this project, the mysteries of the mirror and its use in dance training are not extinguished or resolved. Because the mirror is processed internally and uniquely by everyone who encounters it, the actual effects it inspires, maybe even creates, may never be known. But like the never-reached perfection I pursue in dance technique, I continue to pursue these questions to get as close as I can to understanding and explaining what a modern dancer is thinking and feeling when dancing and looking into the mirror.

CONCLUSION

Before doing this study, I suspected that the mirror is not as objective and straightforward as is sometimes presumed in dance training, and I sensed an interesting paradox that needed attention. I set out to do this project to uncover the mysteries I could only see from the surface initially, even though I had the experience of embodied dancing in front of the mirror for so many years. When I started to analyze my own dancer-mirror relationship, layers of complexity abounded; I depended on a two-dimensional flat reflection to understand my three-dimensional whole body, or I avoided being next to the mirror in modern classes because of the self-criticisms it inspired at close range.

When I went to the dance literature to find support or explanation of a dancer-mirror paradox, mirror use in dance training was not well defended and many contradictions about mirror use were confirmed. Almost all texts mentioning the mirror said it is generally considered a useful training tool for body alignment corrections, but warn it might be overused and become a crutch that prevents dancers from becoming the aspired ideal. Few texts provided applicable techniques to combat the negative aspects of the mirror. In fact, the mirror was often only given brief attention, if any at all. It took creative research skills, resourceful and helpful thesis committee members, and some luck to obtain “dance and the mirror” references.

My ethnographic research, including observation and interviews, reiterated these contradictions, but on a more intimate and personal level. The professor’s and dancers’ responses were rich in perspective and experience, and complex in content. Exploring the six dancers’ transcriptions about the mirror was the most intriguing component of this project. Many of my questions asked them to verbalize the non-verbal action of dancing,

thinking, and feeling, and presented the uncommon challenge of talking about real-time dance experience. Many of them lived up to the challenge and provided conversation that reiterated my own experience or surprised me. I was greatly impressed by the dancers' intelligence and articulateness. They helped me realize how few dancers are given an oral voice and how rich many of them are in both physical and mental capacities.

In future research, I would like to interview dancers with a wider age and experience level to add to my informant demographic. Because the dancers interviewed were in their early twenties, mostly new to modern dance, and in an educational environment, this study only begins to explore the myriad of perspectives possible. In particular, the young women interviewed are evaluated and given grades in technique class and might feel pressure to use whatever help they can to get the best grade. Another limitation was that these women all had physical traits generally deemed "desired" or "acceptable" in a Western concert dance world, in terms of height, weight, and body type. A more diverse pool of informants might reveal further complications. In the same way, I also cannot ignore that UCI is in Orange County – an area that has been recently stereotyped for being obsessed with self-image and plastic surgery – and these young women might embody that aspect of self-worth scrutiny.

I would also like to apply additional theoretical concepts that seem to relate to this material in more depth, ones arising in works by dance theorists such as Maxine Sheets-Johnstone, Sondra Horton-Fraleigh, Irmgard Bartenieff, Lulu Sweigard, Susan Foster, and Cynthia Jean Cohen Bull (a.k.a. Novack). Theorists or practitioners in other fields I would also like to eventually integrate are Michel Foucault, Sigmund Freud, Mihaly

Csikszentmihalyi, Clifford Geertz, and a number of authors in cognitive science writing on sensation and perception.

It's unlikely the mirror will or should entirely disappear from the modern dance studio. I find I often use the mirror and both like and dislike it in my modern technique classes. This research is not meant to find a definitive answer to mirror use, but to help those in the field of dance know what might or might not happen when a modern dancer uses the mirror.

In other, more abstract, ways this thesis research served as another type of reflection for me. Interviews, transcription, and writing all provided other modes of "seeing" my Self. As I listened to my own voice ask questions or respond to interviewees during transcription, I criticized my improper grammar use or the way I asked questions, just as I would when learning a new movement and assessing my arms or legs in the mirror. The informants' responses also served as a type of reflection. When their statements confirmed what I experienced with the mirror, I saw parallel, twin thoughts. For example, when one dancer said, "The mirror affects my proprioceptive sensation," she mirrored my unspoken belief. Just by describing the feeling of dancing, this dancer gave me confidence that although I didn't use the term "proprioception," because it was hard to define and apply to a broad audience, I was still on the right track.

Finally, my writing was a type of mirror image as well. As I looked at my computer, and read the words as they appeared on the screen, I often judged and analyzed the language reflecting my thoughts. I self-corrected by deleting and re-writing, and reflected again (a dancer-computer feedback loop?). Or sometimes, there was just a blank, zombie-like stare at the screen when I suffered from a wealth of self-doubt or

intimidation of the task before me. Other times I stayed away from typing on the screen to avoid seeing the jumbled thoughts coming from my fingers. In thought, the ideas were beautiful – an ideal image – on the page disjointed, unrelated, and “misaligned.”

Yet, these reflections were different than my mirror image. My mirror image appeared as if it was reality, it looked a lot like the actual world and was difficult to distinguish as separate from me. These other “mirror” objects – voice recordings, my informants’ responses, my writing – were sounds, other actual people, and words, not an exact, duplicate-illusion reflection of me. These other reflections provided multiple manifestations of self, and made my mirror image just one of many reflective objects. It reminded me of what the professor encouraged her dancers to do – to change facial focus, use imagery, or face away from the mirror – to help create a more holistic dancer and artist with multiple modes of external attention.

I am also just beginning to understand the finesse, specificity, and innovation writing about dance calls for. One night, while reading an article for this paper, I realized I have developed some kind of dance writing ideal. It was as if I was staring at the admired dancer on the stage and etching his or her technique into my memory. Or maybe I am just beginning to have those conceptual moments when all the little bits and pieces from years of study and immersion in the field come together.

This thesis is the beginning of an interesting journey ahead. In particular, there are many levels to the perceptual relationship between the modern dancer and the mirror I am curious about. Cynthia Jean Cohen Bull succinctly talks about these layers of dance perception when she says, “...perceptions are not just cognitive; they involve both emotional and kinesthetic knowledge. Nor, on the other hand, are such understandings

merely natural or intuitive; they are shaped in every aspect by artistic-social ideas and practices” (282). Along this line of thinking, this thesis looks at some individual dancer-mirror relationships in hopes of organizing, documenting, and understanding dancer perceptions while training with the mirror in a university modern technique class. I hope this information will have consequences for other training environments and techniques as well. In the long term, additional interviews and research will be pursued in hopes of making substantial conclusions and contributions to dancing practices with or without the mirror.

MFA Thesis

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APPENDIX A

University of California, Irvine
STUDENT SELF-REPORT QUESTIONNAIRE
RESULTS IN BOLD (22 DANCERS TOTAL)
“Reflections on Reflections”

Shantel Ehrenberg, Lead Researcher
 Jennifer Fisher, Faculty Sponsor
 Dance Department

Please consider the difference in sensation of dancing with or without the mirror for the Modern III technique classes. REMEMBER: There are no right or wrong answers. Please answer as honest as possible.

Rate the questions below according to the following scale (Circle):
1=No, not at all 2=Very rare 3=Don't know 4=Yes, sometimes 5=Yes, a lot

Have you given much thought to your relationship to your dancing self in the mirror?

1	2	3	4	5
0	1	0	15	6

Do you think the mirror helps you understand how you feel your body move?

1	2	3	4	5
4	5	2	10	1

Do you use the mirror to self-correct your alignment or self-correct your moving body?

1	2	3	4	5
0	3	0	9	10

Has any of your dance training (outside of UCI) occurred without a mirror, for example in a studio with no mirror or from a teacher who turned the class away from the mirror?

1	2	3	4	5
5	2	0	9	6

In your Modern III classes without the mirror, was the sense of your body or of movement affected?

1	2	3	4	5
1	1	2	12	6

In your Modern III classes without the mirror, was your balance affected?

1	2	3	4	5
5	6	5	7	0

In your Modern III classes without the mirror, did you notice significant change in the studio space?

1	2	3	4	5
2	4	3	7	5

In your Modern III classes without the mirror, was it difficult to learn movement combinations?

1	2	3	4	5
13	6	1	2	0

In your Modern III classes without the mirror, did the experience of dancing remind you of dancing for a performance?

1	2	3	4	5
0	1	4	13	4

Do you feel different physically when dancing with the mirror vs. dancing without the mirror?

1	2	3	4	5
3	5	1	11	2

Do you avoid the front line of the class when the mirror is present?

1	2	3	4	5
7	7	1	4	3

Do you have a moving image in your mind of what you look like dancing at the same time you are dancing?

1	2	3	4	5
2	6	3	6	5

Which sentence comes closest to describing your relationship to the mirror in class?

1. I rely more on what I see than what I feel when I dance. **5**
2. I rely more on what I feel than what I see when I dance. **16**

In comparing your experience of dancing with or without the mirror in this class, do you have a preference of dancing with or without the mirror?

With the mirror	Without the mirror	No difference	Don't know/Not applicable
5	10	7	0

APPENDIX B

University of California, Irvine

PROFESSOR INTERVIEW

“Reflections on Reflections”

Shantel Ehrenberg, Lead Researcher

Jennifer Fisher, Faculty Sponsor

Dance Department

Question Outline

How long, in years, have you been teaching modern dance?

What does the concept kinesthetic awareness mean to you as a teacher of modern dance?

By observing and participating as a student to your teaching of modern dance, it seems you have given much thought to teaching and dancing with the mirror. Can you tell me about your own relationship with the mirror? How much of your training occurred with or without the mirror?

What are your thoughts of dancing and the mirror in the dance studio/classroom?

Do you prefer to teach with or without the mirror?

Do you feel you have to work against the mirror in the dance class when the mirror is present?

Do you notice any considerable differences for the class when the mirror is absent?

Do you notice a difference in technique execution or performance quality with the class without the mirror?

Do you change the way you teach combinations without the mirror, for example change location in the room or include more verbal description?

Does the absence of the mirror complicate your job to teach? Why or why not?

APPENDIX B cont.

University of California, Irvine

STUDENT IN-PERSON INTERVIEW

“Reflections on Reflections”

Shantel Ehrenberg, Lead Researcher

Jennifer Fisher, Faculty Sponsor

Dance Department

INTERVIEW QUESTIONS (OUTLINE)

What is your age and undergraduate level at UCI?

What is the dance style you are most proficient in?

What is your technique level at UCI in this style?

How many dance classes per week do you take now?

How would you compare the experience of dancing with vs. without the mirror?

Do you have a preference? If so, why?

On the questionnaire I asked if you had given much thought to your relationship to the mirror when you dance. If you have, can you describe your relationship with the mirror when you dance?

Has your dance training thus far consisted of a lot, a little, or no mirror use?

What is the experience like, for you, to see yourself in a mirror in every dance class?

Do you think the mirror helps you dance? If yes, in what ways?

What do you look for when looking in the mirror when you dance?

Do you use the mirror for self-correction when you dance? If so, can you describe how you use the mirror in this way?

Do you have a picture or image of your body moving in your mind when you dance, in other words, do you re-create a visual image in your mind of your body doing a movement when you do that movement?

If so, do you believe this image helps in executing the movement? Why?

Do you think the mirror contributed to the moving image you create? If so, or if not, why?

Do you think what your body feels when you dance contributed to the moving image you create? If so, or if not, why?

If not, can you describe how your body feels when you dance, for instance, do you just feel where your body, your core, limbs, and head, are and base your movement on this sensation alone? Can you do your best to describe your physical sensation of dancing?

Can you describe a dancing moment in the mirror that you still remember?

Does dancing on the stage feel the same to you as dancing either with or without a mirror? Why?

Have you had any other significant experiences with the mirror and your dancing that have not yet been addressed?

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APPENDIX C

STUDENT INFORMANT DESCRIPTIONS

The following are brief descriptions of the six informants interviewed:¹⁰

Adriana is a 19-year-old sophomore who said she is most proficient in jazz dance and began taking more classical modern and ballet classes in university. She said she has a total of about twelve years of dance training and that her modern training consisted of “a little mirror use.” (Interview conducted 15 January 2005)

Barbara is a 19-year-old sophomore who is most proficient in ballet and said she took two workshops in modern the summer before attending university. She has about eleven years dance training in ballet and said her modern training consisted of “mostly mirror use.” (Interview conducted 8 January 2005)

Carol is a 22-year-old second-year, with two years training at another college. She said she is most proficient in modern. She only has a total of about three years dance training, but also previously trained in gymnastics. She said her modern training consisted of “a little mirror use.” (Interview conducted 19 January 2005)

Denise is a 19-year-old sophomore who said she is most proficient in ballet and modern. She has about two years dance training, and before university was trained as a figure skater. She said her modern training last year consisted “of a lot of mirror use,” and this year “not that much.” (Interview conducted 19 January 2005)

Eileen is a 20-year-old junior. She said she is currently most proficient in modern, with seven years of training, and about seventeen years of training in ballet. She

¹⁰ Names have been changed for anonymity.

said her modern training consisted of “between a little and a lot mirror use.” (Interview conducted 20 January 2005)

Faith is a 22-year-old third year student who transferred from another university. She felt equally proficient in ballet and modern. She said she has a total of about four years modern training (dance training in other forms not recorded for this informant) and said her modern training consisted of “a lot of mirror use.” (Interview conducted 4 February 2005)

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