The Impact of Sound on Perception of Movement

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Abstract

Today in the dance world, with the continuous ebb and flow of research, discovery, and exploration, dancers, makers, and performers run the risk of leaving those who are not trained in dance analysis behind. In any subject, when material becomes so specialized that only those who study the subject-matter can understand, there is an inherent decline in those who pay attention. This research aims to keep people attentive to dance.

This study asked dancers and non-dancers to watch and pair movement with different types of sounds. In their responses, spectators displayed vast differences in their thoughts and feelings towards movement, when the movement remained the exact same, but the sound changed. These spectators were also asked to choose a sound that “best fit” a movement phrase that they were shown. Most spectators chose a different sound, but their explanations as to why they chose each sound were quite similar—each selected the sound they “liked” or “related to” the best. These treatments demonstrate the impact that sound has on the perception of movement, even when that movement remains constant.

Movement, and how it is perceived, is certainly impacted by the sound that accompanies it, and this study demonstrates the same within the context of dance. To keep an art alive requires that spectators are able to engage with the material. Artists should not have to cater their work to their audience, but should be able to make informed decisions in order to consider their audience when they are creating. This research examined such informed choices in dance within the creative process, through affording audience members to make decisions on the specific types or uses of sound.
Introduction

Sound and movement have been linked for as long as either of the two have been around. A study done to understand the ways dance and music interact, found “a large variety of elements that define mappings between music and dance,” (Krumhansl and Schenck 63-85). This study looked at the ways that movement, choreographed by George Balanchine, the founder of New York City Ballet and known as the Father of “American Ballet,” as well as music from Mozart’s *Divertimento* No. 15. Furthermore, it was discovered that when music and dance are paired, there is a “non-accidental” connection between music and bodily movement.\(^1\) Because of this link between sound and movement, it is important to understand the ways they influence each other.

Music evokes certain feelings or emotions and when tied to dance, does it do the same thing? Research indicates that there is “ample” evidence to support the fact that when one emotional stimulus is presented through a single sense, it is also altered by the emotional information that is provided by a second stimulus.\(^2\) In other words, when people have a visual stimulus (dance) and it is paired with another sense (music), both of which induce an emotional response, one of these stimuli impacts or alters the other. This is called the cross-modal bias, it shows that visual perception is enhanced by simultaneous auditory stimuli.\(^3\)

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It is also necessary to understand those who are involved in the performative art of dance. The choreographer is defined differently by many, but is namely the person or persons who create the movement. They are also the researcher or artist who places the intent behind the movement. This intent is then translated to the performer of the work. The performer is the person or persons who do the “dancing.” They attempt to emulate the intention of the choreographer, as well as follow the direction from the choreographer / maker. Many performers understand their task through leaving “themselves” behind and completely embodying the movement that they are given from the choreographer. However, this is not the case for all performers as some, under instruction from their choreographers, are asked to bring their personal experience to the stage with them. Performers are inherently difficult to fully define as it is in practice an embodied work and there is no way to completely “leave yourself” behind. Finally, there are the witnesses to the dance or the performance. These are the spectators or audience members. These are the people who react, experience, and attempt to understand the work that is shown. These three people or peoples, the choreographer, the performer, and the spectator, are who this study will consider in terms of dance, and its creation, as a whole.

Choreographers and performers in today’s dance world are pushing boundaries constantly. They are challenging what it means to dance, perform, and create. Choreographers are asking what it means to be the creator. As stated, they are the ones who are placing intent behind movement, and today they are asking what it means, for example, to not have an intention. Performers are required to be a part of the research as well. They are asked not only to perform the movement but to respond to it, react to it. Through this exploration of what it means to create and perform, the use of sound, and what “sound” is, is being questioned by
choreographers. An example of this boundary-pushing work are the dances of Mary Wigman, a German dancer and choreographer. Wigman is considered one of the most prominent modern dance figures in history. She performed and studied a “music-less dance.” She called it “The Absolute Dance,” where dance stood alone. The only sound that accompanied the movement were the breath and footfall of the dancers who were performing. She also performed a piece that she created called, “Hexentanz” in 1914. This dance had a sound that was created by her percussionist who watched her dancing closely and integrated the sound with her movement. This dance studies sound that is directly congruent and compatible for the movement being performed. Both of these dances called into question the ways sound accompanies dance, as well as the question of what sound exactly is. In the case of “The Absolute Dance,” the sound was not typical “music,” but the music made by the dancers’ bodies moving around in the space, and in the case for “Hexentanz,” the music that accompanied the piece directly complimented the movement, instead of the movement directly complimenting the sound.

Artists like Wigman, are pushing against “typical” or classic sound, sound that neither contradicts or juxtaposes movement, to accompany their movement, and audiences have reacted, generally in two different ways. Some are intrigued about the new types of sound that is being seen, it draws them to question what they already knew about dance, and view it in a different way. They are drawn towards the intrigue, towards the unknown or not-yet-understood. An example of this reaction is the reaction of Gia Kourlas, of the New York Times. In her review of William Forsythe’s, “A Quiet Evening of Dance,” Kourlas writes, “Mr, Forsythe has created a

setting – not completely silent, but nice and hushed – that encourages listening with both ears and the eyes,” (Kourlas). Here, the reaction to sound, or lack thereof, is appreciated, or at the very least sparking interest in the viewer. She goes on to say, “Mr. Forsythe, pays homage to ballet’s European roots while attempting to bring it into the present,” (Kourlas). This piece of Forsythe’s that is “reworking” and bringing in older balletic tradition and meshing it with the contemporary, shows some of the boundary-pushing work that is going on as well as the use of hushed or virtually, no, sound, along with an audience response that is of sparked intrigue and interest. However, it is important to note that reactions like these are rarer than the second option of reaction.

The second, more frequent response, is that audience members feel uncomfortable and unsure how to understand and relate to dance when it does not “make sense” to them. This audience is then pushed away, unable to understand or explain what they experienced or received from the work. An example of this is the audience response to Paul Taylor’s thought-provoking, boundary-pushing work. In his famous performance at the 92nd Street Y, himself and his company walked through seven dances where the use of sound was not “typical” in any way. For example, the opening dance was set to “telephone time signals.” Others of the seven dances were set to heart beats, sounds of rain, wind, or noise. In a New York Times article describing this performance, Jennifer Dunning writes that by the end of the third dance, “most of the audience had left.” And despite a few sympathetic responses, Mr. Taylor told of the audience reaction, “After the concert, the Y management informed me it would never rent the hall to me again…I’d lost an audience along the

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way, and that painful information told me to bear them in mind in the future and try harder to make my discoveries communicative.\textsuperscript{6} This boundary-pushing work is important and necessary to discover newfound things about dance, but so are the spectators who view it. Taylor admits that he needed to consider the ways this work would communicate with his audience in order to allow them to relate with and begin to understand the work that he was attempting to do.

Another example of the audience not understanding how to relate to dance is another response to work by Paul Taylor. In response to one of his pieces, in which Taylor remained still for four minutes without any sound or movement, the critic Walter Terry of The \textit{New York Herald Tribune}, “accused Mr. Taylor of trying to drive him insane,” (Kourlas). As well as, Louis Horst’s famous response to Taylor’s four minutes of stillness in \textit{Dance Observer}, where he responded to the piece with four square inches of blank space.\textsuperscript{7} This reaction from both Terry and Horst perfectly describes the ways that audience members tend to “shut down” when they are unsure how to understand or relate to a dance. The blank space in the paper demonstrates Horst’s lack of language to write about and describe what he saw and how it made him feel, he literally did not have the words.

This reaction, this “shutting down” of audience members, is what this study is attempting to understand and bridge. Obviously, not everyone around the world can have the knowledge or experience to break down and dissect a piece of work. The language to do so is not universal by any means, especially across cultures where art is valued differently, clearly, even when cultures remain constant, like for Louis Horst. This language that is mentioned, is the ability of viewers to


experience dance in a way that allows them to relate the work to their lives, let the work pour into and affect the way they view the world or themselves. Work has been done to understand this “language” or “grammar” used by dance scholars to understand dance. This idea of a dance language is widely disputed, but despite the lack of specific rules that govern the “grammar” of dance, it is clear that dance students, or those who are taught to study dance and study dance on a regular basis, have a certain linguistic formation to speak to and relate to dance. For example, the dance majors at the University of Massachusetts Amherst are taught the Liz Lerman Critical Response Process, to speak about and give thoughts on their peers’ work. This Critical Response Process is widely used, but is specific in its nature. It is a four-step process, Step 1 being, Statements of Meaning. Audience members state what was “meaningful, evocative, interesting, or exciting” in the work they saw. Step 2, the artist, or the creator of the work can ask a question of the audience. This can be anything, but questions that can be answered with a simple “yes” or “no” are discouraged. Step 3, the spectators ask “Neutral Questions.” This means that the questions that are being asked have no opinions tied or weaved within them. Finally, Step 4 is when audience members are allowed to give their opinions, and share freely what they thought of the work, but only after permission is given from the creator.\footnote{ Critical Response Process | A Method for Giving and Getting Feedback. Web. May 6, 2020.} Clearly, this process, though only four steps, is quite complex and requires dancers and artists to consider the work in an opinion-less way. This is only one of the many processes that are used to describe and understand pieces of dance.

Because of the multiple, complex processes that are available to speak about dance, and the ambiguity in how to language dance, “‘grammar’ in dance has always been understood as
culture and context dependent, and dance notation systems, such as Labanotation and Benesh (other forms of dance analysis similar to the Liz Lerman Critical Response Process), rely on the implicit knowledge of performers,” (“Measuring responses to dance: is there a ‘grammar’ of dance? Ausdance | Dance Advocacy.”) ⁹ In other words, there is no universal, understood form to understand or even speak about dance that non-dancers, or even dancers, have access.

This ability then, to relate work to non-dancers’ lives, to understand dance in a way that reflects oneself, is not widespread. Most non-dancers, or those who have not been educated in specific dance notation systems, like those systems aforementioned, do not have the understanding to then relate to dance, or even begin to break down work and understand it.

Sound, however, is universal. Sound is something that most everyone has the capacity to understand and relate to. It is possible to speak with someone from a culture across the globe about a piece of music, what it evokes, what is relatable about it, or what is not. A recent study done by scientists at Harvard was noted as the “most comprehensive scientific study to date on music as a cultural product,” (New Harvard Study Says Music is Universal Language). Over a five-year time period, scientists investigated every society that there was ethnographic information about, in total there were 315, and music was mentioned in all of them. Beyond this, the use of music throughout these societies was similar, music was associated with similar behaviors. ¹⁰ Because of this, when sound is linked with movement, it is possible that it can have

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a huge impact on the way dance is viewed or understood because of the universal, shared
relationship that is had with sound.

Because of the disparity in audience reaction to dance that is accompanied by sound that
“makes sense” and by sound that contrasts or challenges the movement it is set to, as seen in the
reactions to Paul Taylor’s work, this research will attempt to investigate and understand the
impact of sound on perception of movement. The aim is to understand and explain the ways that
sounds affect what we see, and how that invites the audience members to lean in to dance, or
push away from it. This study is important because of the ways that it challenges the direction
dance, and the study of dance, are going. It is questioning who artists, choreographers, and those
who have the resources to study dance are leaving behind in their newfound ways to push
boundaries and discover new things. While discovery and research are essential in any art form,
spectators of that art are also essential. Because of this, it is crucial that dancers and makers
understand the ways they can “take care” of their audience, while also not “catering” to them.
Creation does not need to be based upon those who view it, but consideration of those who will
be viewing it is necessary, like Paul Taylor admitted to not doing in his performance at the 92nd
Street Y. Through the understanding and exploration of how sound affects the movement at
hand, creators can be more aware of ways to make dance more accessible to non-dancers.

Many creators and performers have studied the link between dance and sound, but not
specifically in the way that this study aims to. Choreographers before this have attempted to
understand what sound does to movement, how contrasting sound, or no sound, affects
movement. However, what this research is considering is not how sound affects the movement,
but the perception of that movement. To think about things via images, many artists in the past
have thought about the direct link between sound and movement, a straight line connecting the two. While this study maintains that straight linear line, it is also adding a third party. The study is considering how this line affects the spectator who is viewing the work. This can be envisioned as a triangle. Instead of just the two points rebounding off of each other, the rebound of those two points are absorbed by the third party, the viewer. This third party is the focus for this research. How do the reverberations of the pairing of different sound and movement bounce back to those viewing?

The answer to this question is the focus of the research at hand. The intent is to better understand the connection between sound and movement and its influence on the perception of its spectators. This begins my addition to my mission as a dancer, to bridge the gap between those who are privileged to learn how to dissect and discern how dance makes them feel, and those who are not. Through this, I believe dance can continue as an art that is relevant and valued amongst all communities and cultures across the world. It is already proven that sound is relevant across communities and cultures, so how can it be used to bridge this gap? Without the consideration of those who may not have the resources to read dance and how it coincides with their lives, dance will be left behind by the majority and enjoyed only by those who have the resources to grasp the questions current artists are asking.

My mission as a dancer is to understand how to bridge this gap between dancer and non-dancer, those who are educated and trained to accept when things “don’t make sense” or when they “don’t get it,” and those who are not, those who are trained in the language of dance, and those who are not. The first step that I see as the way to do this, is by linking something that
is universal to all of us, sound, with what it accompanies, what is being called into question: 
dance.

Methods

Conceptual Framework

Preston-Dunlop and Sanchez-Colberg’s Four Strand Theory

This Four Strand Theory developed by Valerie Preston-Dunlop and Ana Sanchez-Colberg looks at four “strands” or aspects of the dance medium, as described in their book *Dance and the Performative*. The four strands that create what they deem “the dance medium” are: Sound, Space, Movement, and Performer. These four strands do not stand alone, but interact with one another. These interactions between the four components are described as Nexial Connections. The aim of this particular framework is to look specifically at how Sound and Movement interact, the Nexial Connection between the two, while all four of the strands are also at play. In other words, it will be focused on the Nexial Connection of Sound and Movement, but will inherently include each of the four strands as these strands are embedded, as Preston-Dunlop and Sanchez-Colberg say, in the medium that is dance.

Valerie Preston-Dunlop and Ana Sanchez-Colberg describe Sound as “any manifestation of an aural part of a work.” It is not merely the music that accompanies movement, but can be any sound or sound score that does so. Sound can be altered through many forms, an example would be to consider where the source of the sound is coming from. A speaker on the ground? A pianist in the back of a performance hall? Sound does not necessarily need to mean music, either.

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Sound can also be considered as just the sound of the dancers’ footfalls or breath throughout the piece, like in Mary Wigman’s “Absolute Dance,” or the recordings of telephone time signals, heartbeats, wind, or rain like Paul Taylor used. All of these types of sound are included in the realm that Preston-Dunlop and Sanchez-Colberg have determined as the strand, or aspect of dance, of Sound.

Movement is described by the authors as, “‘moves,’ ‘material,’ ‘action,’ ‘physical language,’ ‘gestures,’ ‘steps,’ ‘motion,’ ‘the technique.’” These are just some of the terms that are included in “the movement category.” Generally, it is how the body or bodies are in motion, or not in motion. Any movement or non-movement can be deemed as such. Some body positions can reflect a certain technique or movement-style, like the authors mention in regards to Latin-dancing or ballroom. The dancers in this movement-style refer to “The technique” as the movements / moves within the Competitive Ballroom scene. “Technique” can also be referred to as the form of a movement-style, like in ballet. There are different forms that are used that shift how certain poses, hand shapes, leg positions, etc. are done. Regardless of technique, the broad definition of Movement remains, in that it is any position, motion, or action done by the dancer or performer.

Words that Preston-Dunlop and Sanchez-Colberg use to describe Space are, “the ‘stage,’ the ‘dance floor,’ the ‘dance space,’ the ‘venue,’ the ‘site,’ the ‘set,’ the ‘space.’” It is anywhere that art, specifically dance, is occurring. Beyond that, Spaces can have sets, lighting, backdrops, etc. to create a more bound, specific space, but it is, in any case, the space in which art and dance are made. The authors bring up the idea of ambience, which is what these sets, backdrops, lights
etc. can create. Spaces can be transformed into new realms in which we see the art in a space that had never existed before.

In terms of the fourth strand, Preston-Dunlop and Sanchez-Colberg immediately bring up the problems within the term “Performer.” They write, “‘Performer’ is problematic in light of the overlapping nature of the performer / creator / spectator triad in work of co-authorship.” They discuss the use of the term “body” instead of Performer, but also bring forth issues with that rhetoric as it is impossible to distinguish or separate the body from the person that inhabits it. The authors have chosen to stick with the term “Performer” to encompass all of the aspects of the abilities of said Performer to collaborate and be a part of the creation, as well as demonstrate it with their body.

In terms of Nexial Connections, “the various ways in which the strands interweave and signify,” this work considers the connection between Sound, Space, and Movement. This research focuses on co-existing Sound and Space. An example of this co-existence is John Cage’s dragging of a chair across the stage while Merce Cunningham improvises Movement in that same space. How does co-existing Sound and Space / Movement affect the other? For this example, does the dragging of the chair affect how the movement is seen, and how does the movement affect how the chair and its dragging is seen and heard? What are each of these strands doing, in terms of Space and Movement, to impact the other? The contra-contextual Sound / Space is also of interest. This means using Sound that does not “go” with the Movement or Space at hand. The example our authors give is the use of radio or street noise to accompany a ballet class. This framework is considering what this paradoxical pairing of Sound and
Movement does to the viewing or the perceptions of those watching. How does this contradictory aural and visual experience feel?

*The Triadic Perspective*

The triadic perspective considers three processes, according to Preston-Dunlop and Sanchez-Colberg, “a dance event itself comes about through a synthesis of three further constituents – idea, medium, and treatment.” The framework for this research will use a different three constituents: Spectator, Performer, and Choreographer. The spectator, to reiterate, is the viewer, or audience of the dance. The performer is the person or persons who embodies the dance. The choreographer is the person who places the intent behind the movement and creates the movement to embody this intention. The sound, which will also be a factor in this study, will be coming from outside the triadic formation of Spectator, Performer, and Choreographer, and will only be impacting the Spectator, meaning, the pathway from Sound to Spectator is linear and one-way.

This research focuses on how the choreographic intent is reverberated to the performer, then to the spectator. First, as the intent is given to the performer from the choreographer, and then performed to the spectator, what is translated? Meaning, what types of feeling does the spectator get? Furthermore, how is this feeling or effect of the dance changed when sound is changed? When, as mentioned above, the use of contra-contextual sound and movement is occurring.

The impact of the change of sound on the audience will be understood through the audience’s feedback in the form of writings that they will do after each treatment. The researcher will also monitor the audience throughout their viewing of the movement with each sound,
marking down if audience members look at their phone, the clock, or speak with each other
during the movement phrase. Lastly, the impact of the movement on the spectators will be
understood when they choose the music for the movement in one of the treatments. Through
their choice of sound to accompany the movement they are shown, the researcher will
understand how the audience relates music to movement within the types of music they choose
to go with what movement.

Figure 1 shows the conceptual framework implemented in this study. It displays the
different pathways that affect each aspect of dance that are used to understand the data through
the experiments that have been conducted. As shown, the spectator is the receiver of each aspect
of the dance, the choreographic intent and the performer’s interpretation or recreation of that
intent, and at this point in the image, at the spectator, is where the data will come from to then
analyze how each aspect is affecting the perception of the viewer.
Sample

Data will be collected from the spectators who view each experiment. The spectators are from a convenience sample within the current vicinity: the researcher’s three roommates. The

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12 This image was created by the author of this paper, using the layout of the *Triadic Perspective* as described by Preston-Dunlop and Sanchez-Colberg in their book *Dance and the Performative*. The author of this paper has chosen to make their three constituents the choreographer, performer, and spectator, as well as the outside influence of sound that comes from outside of the triangle of creation. Each arrow is being absorbed by the spectator, even if it is mediated through the performer. This demonstrates that the aim of the study is to understand how the perception of the spectator is impacted by each of these aspects.
researcher will also be using themselves as a spectator for one of the treatments. One of the spectators out of the three has a significant background in dance. She has had experience taking class and studying dance for eight years, both in a studio setting and at the college level. The other two spectators have similar backgrounds in regards to dance. One of them took classes at the age of five, but only for a year or two. Since then, both of them have only attended sporadic performances of dance throughout their lives, but neither have studied dance or taken class in any structured way.

The researcher has been studying dance since the age of three. From this age on they trained in a studio, primarily classical ballet along with modern and jazz dance. At age 18, they moved on to study dance at the collegiate level and have been doing so since. They are now 22 years of age and have had experience on many levels with different dance techniques and training, as well as studying ways to analyze and interpret dance. Beyond this, the researcher has had the opportunity to attend many performances and be a part of works of dance that challenge typical dance themes and forms. Each of the spectators is aware, and has consented to, the informal documentation of their responses and reactions during each experiment.

Site

The experiments will be conducted in the researcher’s home in Amherst, Massachusetts due to the closure of the campus of the University of Massachusetts Amherst. It is important to note, in regards to the space, that this is not a dance studio or performance space. It is also the home of all participants of each of the studies, which may impact the ways the movement is observed.

Treatments
Each procedure that was conducted was designed to answer a piece of the question that had been posed regarding the impact of sound on the perception of movement. Each procedure had an emphasis on sound, specifically which sound is played when, with what movement. Furthermore, each procedure intended to further explore the connections that spectators have with sound, and how that influences the perceptions through which the world is viewed, and especially, through which dance is viewed. Each treatment that used dance as the type of movement that was being perceived, used movement that remained constant throughout the entirety of the treatment. In other words, the only aspect of the study that was being changed was the sound. This was to ensure that the only possible reason spectators’ perception from trial to trial was changed, was due to the alteration of the sound. This was necessary to answer the research question at hand, as the purpose of each procedure was to understand how sound, solely, impacted the ways the audience perceived the movement or the dance.

Treatment 1

The first treatment will aim to investigate the effects of using contrasting sound with movement. The plan was to use 1-2 performers, the researcher as the choreographer, and the 3 spectators, who have been described. The performers were to be from the UMass Dance Department, those whom the researcher knew would be able to replicate the movement shown to them well. As the choreographer, the researcher created a phrase that was a classical ballet adagio. An adagio refers to “slow movement, typically performed with the greatest amount of grace and fluidity than other movements of dance,”(“Adagio – Ballet Term Definition.”). As a

person who has trained in classical ballet, the researcher’s background will have an impact on the movement that is chosen.

The materials that were used were solely the movement and the sound that accompanied said movement. The clothing of the dancers was to be anything that they could move in, nothing too flashy or distracting. There were no extra props or set pieces, this is to aim the focus of the spectators solely on the movement and the sound, and nothing else.

The dancers performed the adagio phrase that they were taught four times. Each time, there was a particular sound score used. The four sound scores that were used were: 1) “Nocturne en mi bémol majeur opus 9 n°2: Ballade en Sol Mineur No. 1” by Frédéric Chopin and Luis Fernando Pérez. This is a classic adagio, played on the piano, frequently used in ballet classes. 2) “Me and My Bitch” by The Notorious B.I.G. This is a classic rap song with a strong back beat and lyrics. 3) “Coins Movement and Clanging” by The Hollywood Edge Sound Effects Library. This is a recording of coins being tossed around that is only 11 seconds long, but will be played on a loop. 4) “You Need to Calm Down” by Taylor Swift. This is a current, popular song that plays frequently on the radio. It has a very upbeat feel, a very classic form of a pop song.

Throughout each trial, the movement, the ballet adagio, that was taught to the dancers remained constant, the dancers remained the same, the space remained the same, the sound was the only aspect of this experiment that was altered. Throughout the viewing of each round, the researcher observed the audience members and noted when they: looked at their phone, looked at the clock, spoke with one another, or looked away from the dancing. The audience was unaware of the researcher’s specific observations of them. They understood that the study was being documented, but not that their movements and reactions were being recorded. Through this, the
researcher attempted to understand how engaged with the dance the audience was during each round of performance. The researcher also, after each sound had been used, had the spectators write down how the movement made them feel and what thoughts were provoked or evoked. These notes from each spectator, along with the notes that the researcher takes off the attention of the spectators, is the data that were analyzed.

Treatment 2

For the second treatment, the researcher was exploring audience member choice of sound; what they would choose to accompany a phrase of moment, and why. The researcher used 1-2 performers, the researcher as the choreographer, and the 3 spectators who have been described. The performers were to be dancers from the UMass dance department, those who the researcher knew could replicate the movement that was given to them well. As the choreographer, the researcher gave the dancers a phrase of contemporary movement, movement that was ambiguous with no emotional or formal intent. Again, there were no further materials, props or set pieces in hopes of having the main focus of the observers on the movement and the sound that accompanied it.

First, the dancers performed the movement with no sound. The author notes that achieving the condition of absolutely no sound is not feasible in a creaky home, but for the purpose of this experiment, there was essentially “no sound,” solely the background noise from life occurring. Next, the spectators had four songs played for them, each of a different genre and vibe. They will be the following songs: 1) “My Girl” by The Temptations. This is a groovy, upbeat song that is categorized as the genre: soul. 2) “We Got the Funk” by George Clinton. This is a song with a very consistent beat and is a classic of the genre: funk. 3) “Fly Me to the Moon”
by Frank Sinatra. This song has a steady melody and is of the genre: jazz. 4) “One Day More” from the Original Broadway Production of Les Miserables. This song gains momentum as it progresses and turns into a huge compilation of many of the story-lines throughout the show, it is of the genre musical theater.

After each song had been played through, the dancers showed the exact same movement again, again with no music. For a second time, then, each song was played for the audience. After this, the audience wrote down on a slip of paper the number of the song (1, 2, 3, or 4) that they think would best “fit” the movement, and why they thought so. These votes and explanations are the data for this treatment. The researcher will analyze the audiences’ choices and the reasons that they gave to explain those choices to attempt to understand what movement evokes, in terms of sound, in an audience.

Treatment 3

For the third treatment, the researcher was attempting to understand how different sound affects the movement within daily life. This experiment was to consist of the researcher, as the spectator and maker, while the outside world was to be the performer. The researcher was to conduct this experiment on the bus, to and from class each day. These bus rides typically lasted 15-20 minutes, each way. So, for one week, this experiment was to be conducted on each ride, which averages to about 30 minutes each day.

The materials for this treatment will be the earphones through which the music will be played and the iPhone of the spectator, through which said music / sound will come from. The researcher planned to choose a genre of music or specific sound scape for each day. For every day that this took place, the spectator was to listen to one of the chosen genres for the entirety of
the bus ride and take notes in the Notes section of their phone about what they are thinking about and how they feel. They were to take these notes for each bus ride, so there was to be two sets of notes for each day, one for traveling to campus and one for traveling home.

The researcher used five drastically different types of sound for each day so that they could notice the world around them with a distinct accompaniment each day. The researcher examined the notes taken from each day and dissected the ways each sound made them feel / their perception of the world around them. Through this experiment, the hope was to get a broader sense of how sound impacts the day to day, the observations of the movement that happens all around people that inhabit the world all the time. This treatment looked at the pairing of sound with the world’s movement, instead of a specific choreographed movement. This is to acknowledge the ways that sound infiltrates lives and perceptions of movement all the time, every day.

Instruments

The author’s field notes will be a primary data source. These are the notes that the researcher took while observing the first treatment: when audience members seemed to shift their attention away from the movement, during which sound. The researcher also collected the open responses that the spectators gave after the treatments in which the researcher asked them to write down their thoughts or reasoning. A Bluetooth speaker was also used to produce the sound for each experiment.

The author’s field notes were used to collect and understand when it seemed the audience was most engaged with the movement and when they were not. The author also used their notes on perceptions of the world that were taken during their experiences on the bus rides. These
notes were to be used and compared between each day, so it could be determined what the
differences between how each genre of music changed the perception of the world and what
types of thoughts were provoked. The open responses from the spectators, for Treatment 1, were
to allow the researcher to examine how each persons’ thoughts and feelings changed from sound
to sound. For Treatment 2, the responses were to allow understanding about why the spectators
chose the sound that they chose. These instruments to collect data are reliable because of the fact
that they are coming directly from the viewers of the movement. There is nothing, except the pen
and the paper used, that is mediating the ideas and thoughts that the spectators write down. This
allows the data to be completely organic and original, coming almost directly from the spectators
themselves.

Analytic Plan

The aim of the treatments was to understand the impacts on perception that sound has. To
understand this, each treatment was designed to analyze the ways that different sounds affected
the ways the spectators viewed the movement they were shown, when the movement remained
constant. During Treatment 1, spectators were asked to watch a balletic movement phrase four
different times, each time with a different genre of sound accompanying the movement. After
each time the movement was watched, the spectators were asked to write down what their
thoughts and feelings were during the movement phrase. The researcher also observed the
spectators as they watched the movement and took notes on when the spectators seemed
distracted or disengaged from what they were watching.

The data that were analyzed for Treatment 1 were the field notes that the author took
while observing the spectators and the responses the spectators wrote about their thoughts after
each pairing of movement with sound. The field notes were analyzed through the researcher’s noting when, during which sound, audience members looked away or were distracted by something other than the movement. This shows which sound made the movement the most, or the least, captivating. The thoughts and feelings of each audience member from each pairing of sound and movement were also analyzed. Based on this, the researcher noted which of the pairing or pairings that evoked similar feelings or thoughts in all participants, or if everyone felt something incongruent. The analysis of this data led to a greater understanding about which sounds evoked what types of thoughts or feelings, demonstrating the impact of sound on the perceived movement that was shown.

During Treatment 2, spectators were asked to watch an ambiguous phrase of movement, movement that did not have a specific intent or emotion behind it. The audience members watched this movement without any sound. Then, they listened to four distinct sounds, one after the other. Next, they were asked to choose out of the four sounds they listened to, which best paired with the movement phrase they had seen. Each spectator wrote down their choice of sound, along with an explanation on why they chose the sound that they did. This treatment aimed to understand the ways that sound influenced the perception of movement, through the ways that audience members related to, or did not relate to the sound. Each audience member chose a certain sound for a reason: the movement, they thought, looked “best” with one of the sounds. This aimed to demonstrate the ways that sound impacts the perception of movement that remains constant, that also has no emotional or formal intent behind it.

The data that were analyzed for Treatment 2, was the choices of sound that each audience member made, along with their explanation of why they made the choice that they did. Through
this written response, the researcher was to understand why each spectator made the choice that they did, and to see if there were any trends or reasons for this. From these data, the aim was to understand which sound provokes what sort of feeling when paired with ambiguous movement, and how this influences the overall feeling of a dance or movement sequence. What is meant by “feeling” here is the ways that sound impacts thought processes: what is brought up for the spectator as they watch the movement, what do they immediately think of or feel emotionally, or if they have a specific sensation inside of their body. Namely this study was to display the ways that sound can impact perceived movement, when movement remains constant and has no specific motivation or intent behind it.

The purpose of Treatment 3 was to demonstrate the ways that sound impacts our perception of movement not only in dance, but in daily life. This treatment was to encourage the thought that sound is a lens through which all people can view the world and that lens, or specific sound, discerns the ways in which any movement, like the movement of the world around us, is perceived.

The data that were analyzed for Treatment 3 were the notes that the researcher / spectator took from each day of the study by comparing them with each other. This allowed the researcher to see if there were any trends or similarities between provoked thought or feeling and sound, when the world is moving by. It allows the author to see if how they perceived the world around them changed, and what those changes were, based on what sound was heard. These data will demonstrate the ways that sound impacts perception of movement, even when that said movement is not “dance” specifically but the movement of the world passing by.

**Results**
Results – Treatment 1

Treatment 1 required the spectators to watch an adagio phrase of ballet with four different sounds. The first sound was a classical adagio played on the piano, the second was a rap song with a strong beat behind it, the third was sound effects of coins being thrown around, and the fourth was a pop song by Taylor Swift. Each of these sounds were drastically different for the purpose of understanding whether or not the sound that accompanied the movement that remained constant, had an effect on the spectators’ perception of said movement. The findings of this Treatment were that sound does, in fact, have an impact on the perception of movement when that movement remains constant.

The responses from the spectators indicate this result, as well as the field notes that the researcher took during the Treatment. For each sound out of the four, the responses to the watched movement were drastically different. For example, one of the spectators wrote after the first round, the viewing of the balletic movement with balletic sound was, “elegant, light, pretty, soft.” However, then when the movement was paired with the sounds of coins clanging, the third trial, that same spectator wrote, “feels uncomfy, are you walking on glass?” These are clearly, quite different experiences of the same movement. Another example of the impact that sound had on the consistent movement was found in the comparison of reactions to the first and second trial. After trial one, all three spectators wrote quite similar things, “elegant, classic, looked hard, pretty,” however, they also all wrote similar things after the second trial, the trial that used the rap song by the Notorious B.I.G. One spectator wrote in response to trial two, “loved the juxtaposition, it feels right even though it’s wrong, it made me happier and it made me smile.” Another wrote, “I found this to be more engaging and fun to watch.” And the third spectator
wrote, “beast mode, goes to the movement.” In this comparison between trials 1 and 2, it is clear that the sound that “made sense” was not as exciting or captivating as the sound that juxtaposed the movement. It is also clear, broadly, that sound impacts the perception of constant movement.

Furthermore, an unexpected result from this study was the understanding that personal connection to music has an impact on the ways that movement is then perceived. This impact was documented by each of the spectators in their responses to the fourth trial of the treatment, the trial that used the pop song “You Need to Calm Down” by Taylor Swift. This was the only trial in this Treatment that the spectators brought in their own opinions of the song, and those opinions certainly had an effect on the perception of the movement. One spectator wrote, “I hate that song,” another wrote, “I can see Taylor Swift doing this,” and lastly, one spectator even wrote, “I hate Taylor, she’s so bad I can’t even pay attention to the dance.” These reactions clearly indicate the impact that sound has on the perception of constant movement, as one spectator could not even engage with the movement because of her personal connection / distaste for the sound that was used. This also accentuates the findings previously stated, that sound certainly has an impact on the way movement is seen when that said movement is constant, because these reactions were coming from the viewing of the same movement that was moments before experienced as, “elegant” and “pretty.”

Lastly, the observations that the researcher noted of the engagement of the spectators as they watched the movement for each trial indicated that when the spectators were uncomfortable, was when they were the least engaged with the movement. This discomfort was reflected in the spectators’ reactions to trial three, the trial with the sound effects of coins. All three spectators wrote of their discomfort, one wrote, “jarring, uncomfortable,” the second wrote, “did not enjoy,
I’m cringing,” and the third wrote, “feels uncomfortable.” This is congruent with the notes that the researcher took from observing this trial. The spectators were the least engaged during this trial as the researcher wrote they were “glancing up at (the researcher)” and “scratching their heads, looking around.” These behaviors indicated their non-engagement with the movement, further demonstrating the impact that sound has on the perception of movement.

Results – Treatment 2

Treatment 2 required the spectators to view movement that had no choreographed intent or emotion behind it, and then choose which sound they believed went the best to the movement. This was done by having the spectators view this ambiguous movement without any sound, and then listen to four different sounds. After they listened to the four different sounds, they were asked to vote on what song they think would be paired best with the movement and why. It was found that personal connection and reaction to sound were what impacted the choices each spectator made, as well as their individual perception of what the movement called for in terms of sound.

Each of the spectators chose their music based on what they thought best fit the movement that was intended to be ambiguous. All of the spectators noted how the song they chose made them feel, and how that went with how viewing the dance felt. Each spectator chose the song that made them feel the same way that the dancing made them feel. For example one spectator wrote that they chose song one because, “it best fits one possible version / interpretation (of the dance) – that is more upbeat, sunny, carefree dancing.” Another wrote, “I like the first song because I felt like the dance without music made me want to dance a little bit and so does the song ‘My Girl.’” And lastly, the third spectator wrote, “I choose (the) disco
funky (song) because I feel like it’s the most similar vibes to the dance.” Again, the spectators chose the songs that they believed gave them the same reaction that the movement did.

This demonstrates the impact that sound has upon movement, in that there were choices that the spectators believed did not go “with” the dance. For example, one spectator wrote that the fourth sound, the song from *Les Miserables*, was a “definite no from me, it made me feel scared and weird.” In this spectator’s choice not to use the sound from *Les Miserables*, they were displaying the impact that the sound had on them, and would have had on the movement if the dance were put to this sound.

**Results – Treatment 3**

Treatment 3 required the researcher to listen to a different genre of sound every day for a week on their bus ride to and from their college campus. Because of the impact of COVID 19 and the shutdown of said college campus, this study was done differently than it had been proposed. Because of this, the results were inconclusive. There were some trends in data that indicated the impact of sound on the perception of the movement of the outside world, in that the researcher experienced different thoughts and feelings when listening to different types of sounds. However, because of the influence of COVID 19, there is no way to determine whether these data were a result of outside influence, like the anxieties of having a global pandemic occurring, or the result of the sound that was being played. Lastly, it was determined that when upbeat sound was played, the listener felt a rise in spirits, but it did not impact the ways that the listener viewed the world, as the listener was unable to “view the world” beyond their current residence, due to the stay-in-place order.

**Discussion / Conclusion**
Treatment 1-3

It was determined that sound does indeed have an impact on the perception of movement, specifically, when movement remains constant and sound, exclusively, is altered. The exact same movement went from being perceived by spectators as “beautiful” and “elegant,” to “uncomfortable” and “cringe-worthy” in the matter of minutes due to change in sound. Furthermore, personal connection was found to also have played a role in the impact on perception of movement. When spectators had a personal connection to the sound that was used, there was a stronger reaction, regardless if it was a positive or negative reaction. This personal connection with sound influenced the way that movement was perceived and even caused one spectator to be unable to concentrate on the movement at hand. This personal connection to sound is, however, out of the control of the researcher and the spectators. There is no way to fully encompass or understand to what extent that the histories and experiences of someone impacts the way they view, hear, or understand something. It would also have been impossible to choose a song / sound that none of the spectators had heard before, as most humans cannot be sure whether they have or have not heard a sound somewhere at some point in their lifetime.

Future studies could consider the ways that this personal connection to sound affects how we perceive movement, and in what ways. Future studies could also consider the ways that personal preference in sound determines what movement one is drawn to, or repelled from. An interesting finding that was not included in the conceptual framework of this study was the finding that when the sound that accompanied the movement that was not “typical,” it was in fact more engaging to spectators when it was sound that was upbeat and exciting, like the rap song that was used to accompany the balletic movement. However, when it was sound that was
unenjoyable, like the coins clanging together, this juxtaposition between sound and movement was not appreciated. A future study could consider this difference in reaction and potentially note that the sound, it seems, is the defining factor in whether the audience relates to the work or does not, is drawn to the work, or is not.

In terms of other studies that have been conducted, these results coincide with some of the studies that came before it. For example, in regards to the audience being repelled by the use of a recorded sound instead of music, the findings were consistent with the findings of Paul Taylor in the responses to his performance at the 92nd Street Y. In this instance, Taylor was using recorded sound of telephone time signals, a heartbeat, as well as rain and wind. Audience members were so uncomfortable that they were leaving the performance while it was still going on. The audience in this study was also repelled by the use of recorded sound, the coins clanging together. During the trial that used the coins clanging as the sound, there were the most recorded negative feelings and thoughts.

In a different vein, George Balanchine designed his dances to fit the sounds of the music perfectly. Balanchine would dissect pieces of music from Bach and Mozart, and use the movement that he created to accentuate minor details within the music that was written. In contrast to Mary Wigman, who used movement for the basis of the sound, Balanchine did the opposite and used the already written pieces of music to drive the inspiration for the movement he created. This, though popular amongst those who frequent the ballet, was not as popular amongst the spectators of this study. In Treatment 1, when the ballet adagio was paired with a classical song used to accompany ballet, the spectators were not all that impressed. This trial was where spectators wrote the least, and one even wrote they did not “have much to say.”
Music theorist, American composer, artist, and philosopher John Cage was a pioneer of non-standard use of musical instruments and a pioneer in the study of sound. He composed the piece, “4’33,’” pronounced “four minutes, thirty-three seconds.” This piece is composed for any instrument or instruments, and it instructs the performer or performers to not play their instrument for the entirety of the piece. The performer stands there, in silence, with their instrument for the whole piece. This means that though there is an instrument or instruments present, the sound that is being received by the audience is the sound from the space in which the performance occurs. This piece deals with expectation of sound and reality, of what sound is and can be. This study by Cage questions what “sound” in performance is, and what happens when the audience expects a certain sound (music played by the instruments in the musicians hands), but gets something quite different: the sound of the room around them. This is slightly similar to the work of Mary Wigman in her “Absolute Dance” where sound was just the inevitable sound from the moving bodies that were dancing. This idea is also tied into this research as it considers the ways that sound, or “no sound” affected what the viewer was seeing and perceiving. It is congruent to the findings as well, in the second trial of Treatment 1, when the second sound was used, “Me and My Bitch” by the Notorious B.I.G. When the song began was when, for the first time during the experiment, all spectators glanced up at the researcher, smiling or wearing surprise on their faces; eyes widened, mouths agape. This was because of the unexpected nature of the sound, the sound of a rap song, that was to accompany the balletic movement. This reaction was like the surprise of the unexpected “silence” that came with John Cage’s “4’33.’”

Treatment 2 was specifically inspired by a performance / study done by Merce Cunningham. In his piece, “eyeSpace,” audience members could choose to listen to either a
musical score that was created for the piece through an iPod on shuffle, or to allow the room / performance space’s “sound” to accompany the movement. Each iPod was set to “shuffle” which means that for each person, though they had the same score, it was in a different order. This made, according to a New York Times Review, watching the piece a “thrilling” experience. “We were all cocooned in our own worlds, hearing something different, just for us…the ultimate in intimacy,” (Rockwell).¹⁴ This choice for the audience of how they wanted to experience the sound influenced Treatment 2 in this study, in that it also allowed the audience to use their own judgement on what would “work best” to accompany ambiguous movement.

This piece by Merce Cunningham also relates to the earlier point in that the use of atypical or unexpected sounds to accompany movement can be both exciting and unnerving. Like the experience of the spectators in Treatment 1, trial 2, where the use of a rap song to accompany balletic movement was exciting, in trial 3, when the movement was being accompanied by coins clanging together, the audience was uncomfortable and cringing. This was similar, as it was in audience reaction to Paul Taylor’s sound at the 92nd Street Y, to the reaction to Merce Cunningham’s work. This similar reaction in discomfort amongst spectators was because during “eyeSpace,” beyond the music coming from the iPods, the composers “seated at keyboards by the stage, chose to add a general sonic racket through loudspeakers (city noises, subway announcements) that was audible through the earphones,” (Rockwell). The response to this, according to the New York Times article was not appreciated, much like how the spectators reacted in Treatment 1, trial 3 to the coins clanging, and the reactions of audience members to

Paul Taylor’s use of recorded sound, “Maybe for some this further juxtaposition of public and private was interesting. I found it distracting,” (Rockwell).

Amongst many others, the study of sound and movement has been prevalent for a long time. A lot of the ways that the audience reacted to sound was similar to studies that had been done previously. The difference between most of those studies, and the studies that have been mentioned, and this one, is that the previous studies did not look at the responses of the third party that perceives the Nexial Connection between Sound and Movement: the audience. What was the focus of this study, audience reaction and perception of movement, was only counted in other studies, if at all, after the fact, after creation. Paul Taylor even admitted that he should have considered the audience reaction to his research. This research was done to encourage that thought process for future creators, so that creators are aware of the ways that the usage of sound has an effect on the ways their creations, their choreographed movement, is perceived by the members of their audiences.

**Strengths**

This study is unique because, unlike other studies on sound and movement, this study considered the effects of sound on the *perception* of movement. It looked at the ways that sound changed the ways that movement was seen from the perspective of the spectator. Most studies solely look at the connection between sound and movement, but this study goes one step further and is looking at the ways that that connection between Sound and Movement then translate to the viewer. The reason this is important is because dance is not a closed off art, sound and movement do not just bounce back off of each other, this rebounding between the two is then

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watched by the spectator, the spectator that is necessary for this art. This study considered this third party, the viewer, because of how essential the viewer is to the art of dance itself. With an understanding of how the connection between sound and movement is perceived, choreographers are then able to make informed decisions for their work in acknowledging that the sound they choose will impact the ways the movement is viewed. This, then, could be used to draw more viewers in through the use of a sound that is widely known and loved. Or, it could be used to draw in specific viewers, for example, viewers the choreographer knows love the way that rap and ballet mix, or something like that.

This study is also unique in its use of current, popular songs and sound. Because of this, the researcher was able to understand personal connection to sound, and this connection certainly demonstrated the ways that sound impacted perception, especially when the sound that was used was popular or well-known. Further, the study not only used current sound, but also young, college-aged people who are going to have a fresh outlook. Without very much knowledge about dance, these spectators were able to bring a raw, organic perspective, instead of having an idea of what they “should” or “should not” say in their reaction to dance. This gives the study further credibility as the findings, then, were also raw and organic.

This study adds to the world of dance the ability of makers to understand and create pieces that use sound to bring in audience members that are outside of the dance community. This study shows how impactful sound can be on the perception of movement, and that impact that sound can have has an influence on the audience’s ability to understand and relate to dance and movement. This is important to the world of dance as dance is continually changing and being researched. While this ever-changing world of dance is intriguing and special, it is also
imperative that those who are outside of the dance community have a way in to understand and relate to the work. This study provides and proves that sound is one option for creators to use, to make their work inclusive.

Limitations / Delimitations

COVID-19 had a huge impact on this study in many aspects. Because of the necessity of staying indoors and not interacting with people outside of the home, the sample set of spectators was smaller than intended. Because of this, it is possible that the data that were gathered does not encompass all non-dancers, compared to what was previously intended. Also, because of these circumstances, the sample set of people was going in with an idea of what the broad picture of this study looked like. This could potentially have influenced some spectators or skewed data in some way.

Treatments 1 and 2 were affected by COVID 19 in the ways that the spectators viewed the movement. Originally, the movement was to be done in Totman Gym by other dance majors that the researcher knew would be able to replicate the movement they were given well. Because of the need to socially distance, the dancers were unable to do this. Instead, the researcher, who was also the choreographer, recorded themselves doing the movement and showed it to the spectators through video. This, though incidental, ended up working better for a number of reasons. First, the video recording made it so the movement, the ballet adagio, was repeated each time exactly as it was shown. Meaning, there were no discrepancies from trial to trial, which is possible when movement is live. Furthermore, the choreographer then also became the performer, which defeated any possibility of movement being lost in translation from choreographer to performer. Specifically for Treatment 2, when the movement was intended to
be ambiguous, that intent was surely there as the choreographer did not need to pass that intent off to another person, but just needed to embody it themselves.

Treatment 3 was also greatly affected. Because of the closure of campuses and the only bus rides offered are those that were “essential,” the researcher was unable to conduct the experiment in the way that it was originally laid out. Had the researcher not been affected by these limitations, they would have listened to a different genre of sound each day, to and from class on the bus, and recorded their thoughts and feelings about the ways that they perceived the movement of the world going by through the bus window. After a week of this, the researcher would have looked at the notes from each day and compared the differences in notes to attempt to understand a trend in feeling / reaction to the world around them with the sound that was playing. This treatment was attempted in a revised fashion from inside the researcher’s home, looking out at the world, however, as previously stated, the results were inconclusive. There was no way to re-create the movement of the outside world that would have been created by the bus’s movement, as well as there was no way to determine whether the current pandemic had an effect on the reactions and feelings of the spectator. This is critical because even if sound had an impact on the perception of the spectator’s world, the spectator’s anxieties about the current pandemic, for example, remained constant each day, as it is a constant concern. For this reason, the results for Treatment 3 were inconclusive and did not apply to the study as a whole.

This point, to some extent can be applied to each treatment that was done. Meaning, that there is an uncontrollable amount of factors that impact the ways that we view any part of life. As stated in the results, the personal connection that spectators had with songs is out of both the researcher’s and the spectators’ control. This previously built relationship with a certain sound or
song does have an impact on the ways that it then led the spectators to view the movement. This, however, just created a further understanding of how sound does indeed impact perceived movement, therefore, it is still relevant to the study. Because spectators had a personal reaction to some songs, for example the Taylor Swift song, the impact of sound on perceived movement was actually accentuated and emphasized. Movement that was previously deemed as “pretty” or “elegant” was now unable to be watched or paid attention to because of the sound that accompanied it.

Furthermore, there is no way to fully encompass the population of non-dancers. It is also true that because, as humans, we all have different past experiences with sound and music, there is always the opportunity for sound to be triggering some kind of emotion or historical event in someone’s life. The researcher did not inquire about this to the spectators, so was not aware if there were songs or sounds used that brought up emotional ties that could have influenced their perception of the movement because of that sound. Lastly, it is necessary to note that amongst the population of non-dancers and dancers, there are those who do not have their sense of hearing. This study does not include perception from those who have lost their sense of hearing and do not have the option to experience the changes that sound makes to the perception of movement.

Conclusion

Sound and movement can be, and have been, studied in endless ways. Sound and movement can connect and be linked. This linkage is seen in the work of George Balanchine, as he compliments the music he choreographs to with his movement. Sound and movement can also be disparate, challenging one another, like the works of Wigman and Cage have demonstrated.
This study aimed to understand how these choices impacted the spectators’ perception of the movement. When movement clashes with the sound that it is paired with, are spectators uncomfortable? When movement goes perfectly with the sound, like a ballet, are spectators calmed? These questions are subjective, what is evoked within spectators is dependent upon their past experiences, their personal connections to certain sounds. However, what is known is that whether the sound juxtaposes movement or compliments it or is absent altogether, it certainly has an impact on the perception of the movement.

This study confirms the influence of sound upon movement. This influence of sound is important to know from an artists’ perspective because of the universal relationships humans have, across cultures, with sound. With this knowledge, artists and makers can move forward in dance, dance research, exploration, creation, in a way that can consider how the audience will react and feel towards the performance or piece. Perception is in fact changed when sound is altered and movement remains constant. This fact does not discern which is the “right” or “wrong” way to pair movement with sound, it simply allows artists to understand the ways they can shift or change their audience’s perception of their movement with the use of sound.

Hopefully, with the knowledge at hand of the ability to alter perception of movement with sound, artists will continue to draw people into dance and performance, allowing them the ability to engage with dance in a way that considers the “outsider” perspective. In order to grow and continue the appreciation of dance, there must be those who are doing the appreciating. It is a tall order to ask audience members to appreciate and understand something they do not have the language to. A tool to bridge this language-barrier is sound. It is not the only way, or the best way, but it is a way to encourage an audience member’s engagement with a piece of dance that
they may not be able to fully dissect or relate to. With the help of sound, though, they could be able to take a few steps closer to the work.

The aim of this study was to begin chipping away at the ways artists are approaching dance and furthering dance research and exploration. While it is inevitable that boundaries will continue to be pushed and questioned, it is also necessary to consider who is left behind in these endeavors. When the language to understand dance is solely taught to those who are studying, researching, and performing, leaving behind those who do not have access to this information is unavoidable. This research indicates the ability of sound to break down that barrier between the educated dance scholar and the audience member who has never taken a dance class in their life, to be the aspect of a dance that draws people in to then allow them to be a part of the questioning, the research that is being done. Sound has the potential to allow everyone to be a part of the conversation and engagement with the dance in its proven significance on the audience's perception of movement.
References


