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From Ear to Foot: How Intuitive Choreographers Interpret Music.

Sabine Wilden

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From Ear to Foot:
How Intuitive Choreographers Interpret Music.

by

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From Ear to Foot: How Intuitive Choreographers Interpret Music.

by

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ABSTRACT

What is the relationship between music and dance? Specifically, when choreographers interpret music with movement, what in the music are they responding to? When faced with ambiguities in the music, such as conflicting meters, how do choreographers choose which paths to pursue?

With the aim of addressing these questions, fourteen professional choreographers from Europe, Brazil, and the United States were recruited to participate in a survey. This included a) general questions about how they use music when choreographing, and b) specific questions concerning four short musical tracks taken from the second movement of Maurice Ravel's String Quartet in F Major. Regarding the general questions, responses revealed that choreographers have very different approaches to incorporating music in their working methods. Nevertheless, regarding the specific questions, answers

showed striking consistency in how individual musical passages would be interpreted.

In a second, exploratory study, aimed at achieving ecological validity, five student choreographers (undergraduate and graduate students at the University of New Mexico) were asked to create and perform a solo dance to the complete second movement of Ravel's String Quartet. These performances were videotaped, and each video was analyzed (somewhat following Hodgins, 1992) for rhythmic, dynamic, textural, structural, and articulative qualities. The music was then analyzed along similar dimensions, and the results were compared. Musically ambiguous passages (e.g. those with conflicting meters) were of special interest, as they demonstrate the variety of interpretations that choreographers have, and presumably that listeners do too.

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Chapter One

Introduction

Choreographers have the choice to work with or without music to create a dance. Depending on the choreographer's intention, music and dance can relate to each other in a panoply of ways: on the one hand, dance can visualize the music (as with Balanchine's collaboration with Stravinsky), and on the other hand, dance and music can be two independent entities (as with Cunningham's collaboration with Cage) with endless possibilities in the middle of the spectrum.

When attending a dance performance which involves music, an audience may (or may not) perceive the intended relationship between the two art forms. Research studies have focused on audiences' perceptions of such features as tension, emotion, and section endings in both music and dance (Krumhansl and Schenck, 1997), and whether choreography and music can be matched in memory (Mitchell and Gallaher, 2001).

This research is important because it demonstrates that viewers are sensitive to the music-dance relationship. However, previous studies are limited in that they address only viewer perceptions. To the scholar interested in the music-dance relationship, the act of creation should also be of interest. Very little is known about how the creators of dance, the choreographers, make their movement choices in response to music. Which musical features are influential to choreographers when interpreting music with movement? How do

choreographers choose which paths to pursue when being confronted with ambiguities in the music?

Studies on Music-Dance Relationships by Stephanie Jordan

One notable research project has sought to answer these questions. In her book *Moving Music* (2000), Stephanie Jordan analyzes choreographic-musical relationships in the works of three famous choreographers. Notably, all three choreographers were highly musical. George Balanchine, “the musician choreographer *par excellence*,”¹ who founded the New York City Ballet, “studied not only piano but harmony, counterpoint, and composition”² at the Petrograd Conservatory of Music. “During his career as a choreographer, . . . he remained an active pianist and composer” and “convers[ed] in sophisticated musical terms with composers, conductors and rehearsal pianists.”³ Furthermore, “he made his own piano transcriptions of orchestral scores,” which demonstrates the extent of his expertise in musical analysis.

Antony Tudor, also a choreographer of ballet, studied piano “at one of the London music colleges” and “[was determined] to learn as much about music as possible.”⁴ He thus read through second-hand sheet music on the piano in order to expand his music repertoire knowledge. Furthermore, Tudor was a piano

¹ Stephanie Jordan, *Moving Music: Dialogues with Music in Twentieth-century Ballet*, (London: Dance Books, 2000), 105.

² Robert Gottlieb, *George Balanchine: The Ballet Maker*, (New York: Eminent Lives, Harper Collins Publishers, 2004), 17.

³ Jordan, *Moving Music*, 105.

⁴ *Ibid.*, 269.

accompanist at the Rambert studio, where he was exposed to the Dalcroze method.⁵

The third choreographer, whose work Jordan analyzes, Frederick Ashton, was not as highly trained in music as Balanchine and Tudor, but he claimed to “tak[e] [his] lead directly from the music.” He also “had a mother who was musical.”⁶ Ashton looked up to Balanchine, admired his musicality, and like him, “[named] ballets after their score.”⁷

Balanchine, Tudor, and Ashton are atypical in two respects: They are all male choreographers primarily of ballet, and they all stress music to be their primary focus or guiding force. Two of the three, in fact, were highly trained musicians, which makes them unusual among contemporary choreographers.

In a chapter for *Ravel Studies* (2010),⁸ Jordan analyzes the ‘choreomusical’ relations between *Shimmer*, a work by the contemporary modern dance choreographer Richard Alston, and Ravel’s *Sonatine*. Jordan points out that the “reason for focusing upon Alston [in her chapter] is his widely acknowledged ‘musicality’.”⁹ She also writes that Alston was able to read music,

⁵ See Appendix A for more information on Jaques-Dalcroze.

⁶ Jordan, *Moving Music*, 187.

⁷ *Ibid.*, 188.

⁸ Stephanie Jordan. “Ravel dances”: ‘Choreomusical’ Discoveries in Richard Alston’s *Shimmer*. Published in *Ravel Studies*, ed. Deborah Mawer. NY: Cambridge University Press, 2010, 166.

⁹ Jordan, “Ravel dances,” 169.

and that “his work [was] prompted primarily by music.”¹⁰ Alston thus represents yet another exception among choreographers.

In this respect, it should be noted that university dance departments, at least in the U.S., tend to require little if any formal training in music. An informal survey of thirteen randomly chosen U.S. universities (see Appendix B) reveals that, for the most part, music classes are minimally required for undergraduate dance majors. For most programs, a semester of dance-specific musical training is all that is required (if any). It should be clear that the degree of musical training achieved by Balanchine, Tudor and Alston far surpasses that of the majority of university-trained dancers and choreographers today. Jordan’s studies, therefore, though valuable, may be less applicable to choreography generally than they are to a few, exceptionally musical choreographers.

Analytical and Intuitive Approaches to Choreography

One way of typifying this difference is to say that at least three of the four male choreographers studied by Jordan were highly analytical in their approach to music, while most choreographers today seem to respond to music in a more intuitive way. It is clearly crucial for dance scholarship to investigate not only the analytical approach to choreographing to music but also the intuitive approach.

Intuitive choreographers oftentimes enter into the choreographic process with a holistic concept and therefore might not be fully aware of the reasons why

¹⁰ Jordan, “Ravel dances,” 169.

they choose certain movements. If the reasons for particular movement choices are obscure for the dance creators themselves, then they are certainly less traceable for us. According to composer Richard Cameron-Wolfe, “limitations of the choreographer’s musical training and musical awareness make it problematic [for them] to articulate sophisticated musical [terms].”¹¹ Musical training, however does not necessarily mean that a choreographer always choreographs analytically; she or he can still choose the intuitive way of choreographing.

Both intuitive choreographers and analytical choreographers produce magnificent works and show us how wide and fruitful choreographic works can be, regardless of approach. By no means should one method be deemed superior to the other. However, the intuitive choreographic way is considerably less understood and examined. This research paper explores how intuitive choreographers hear and interpret music. It particularly focuses on the musical features influencing choreographers in their movement choice.

In order to broaden the scientific understanding of choreographic-musical relationships, two studies were executed for this project. The first study was a survey, intended to assess the thinking processes of choreographers in their approaches to music; and the second study was a choreographic assignment, designed to assess choreographic methods in an ecologically valid context.

For Study 1, fourteen professional choreographers from Europe, Brazil, and the U.S. were recruited to participate in a survey. This included a) general

¹¹ Richard Cameron-Wolfe, e-mail message to author, February 20, 2012.

questions about how they use music when choreographing, and b) specific questions concerning four short musical passages taken from the second movement of Maurice Ravel's String Quartet in F Major. Regarding the general questions, responses revealed that choreographers have very different approaches to incorporating music in their working methods. Nevertheless, in response to the specific questions, answers showed a striking consistency in how individual musical passages would be interpreted.

Study 2 was aimed at achieving ecological validity: one male and four female student choreographers (undergraduate and graduate students at the University of New Mexico) were asked to create and perform a solo dance to the complete second movement of Ravel's String Quartet. These performances were videotaped, and each video was analyzed (somewhat following Hodgins¹²) for rhythmic, dynamic, textural, structural, and articulative qualities. The music was then analyzed along similar dimensions, and the results were compared. Musically ambiguous passages (e.g. those with conflicting meters) were of special interest, as they would potentially demonstrate various ways that choreographers could interpret individual passages (and presumably that listeners might as well).

In general (although not in the statistically significant sense), choreographers responded to a wide range of musical attributes, such as rhythm,

¹² Paul Hodgins, *Relationships between Score and Choreography in Twentieth-century Dance: Music, Movement and Metaphor* (London: Edwin Mellen Press, 1992), 25-30.

meter, mood, melody, dynamics (loudness/softness), structure (phrase beginnings and endings), contour (an ascending melody line versus a descending melody line), timbre (e.g. the sound of a violin played with or without mutes), articulation (e.g. pizzicato [plucked] versus arco [bowed]), and motivic structure. But, as composer Richard Cameron-Wolfe says, “each choreographer prioritizes [the musical attributes] differently [and] only responds to a partial selection of them.”¹³

This research paper can help us understand and learn about the creative act of choreographing. As such, it has the potential to bring to light some of the mysteries that often lie hidden underneath the dark veil of ‘intuitive’ or even ‘genius’ or ‘inspired’ notions of the dance-creation process. Analytical approaches to choreography are the ones that have been the most studied (despite the extremely limited number of even those studies), but not all choreographers, perhaps not even most, use such strategies. Intuitive approaches are significantly understudied and unexplored. The following set of studies aims to bring light to some of the murky, hidden cognitive and artistic processes that motivate and guide choreographers in their acts of creation in response to music.

Moreover, this paper also contributes to the music perception and cognition literature: choreographers and dancers can be thought of as listeners, who happen to act out their structural and emotional responses to music. Thus,

¹³ Wolfe, e-mail message, 2012.

following this logic, one can examine how listeners perceive and interpret music generally by studying how dancers respond to it.

Motivation

This study is motivated by a personal interest along with a conflict: When watching contemporary dance performances, I have wondered about the wide variety of choreographic responses to pieces or passages of music. While movement choices would seem infinite, there must certainly be some responses that *do not* work, or work less well for a certain musical piece. Is there a dance interpretation that works better for a particular composition? How exactly do the creators of dance make their movement decisions in response to music? If choreographers are responding intuitively rather than analytically, how do they hear and interpret music?

There are endless possibilities of how music can be used in the process of dance creation: on the one hand, the choreographer can visualize the music; Balanchine's collaboration with Stravinsky is probably the most famous example for this method. Stravinsky once said that "watching Balanchine's choreography is like hearing the music with one's eyes. It is like a tour of a building for which I had drawn the plan but never explored the results."¹⁴ Other influential choreographers who claimed music to be their primary inspiration were Isadora Duncan, Ruth St Denis and Ted Shawn, Michel Fokine, and Vaslav Nijinsky.¹⁵

¹⁴ Stephanie Jordan, *Music Dances: Balanchine choreographs Stravinsky*, DVD, directed by Virginia Brooks, produced by Delia Peters (New York, N.Y.: George Balanchine Foundation, 2010).

¹⁵ Jordan, "Ravel dances," 171.

On the other end of the spectrum, the choreographer can choose for dance and music to be independent entities; here Cunningham's collaboration with Cage can serve as an example. Not knowing what the other artist created, choreographer and composer designed a self-standing dance and a self-standing musical work. Those two artistic works had nothing more in common than being performed at the same time and space.¹⁶

In her book *Dance with the Music* (1985)¹⁷ Elizabeth Sawyer, accompanist for Antony Tudor, presents a third group of possible relationships between music and dance. In addition to synchronization and opposition, similar to the two contrasting categories mentioned above, she also introduces the concept of assimilation.¹⁸ The term *synchronization* is similar to the concept of visualizing music through dance, which is found especially in traditional ballets.¹⁹ *Opposition* labels music and dance as two entities which can be contradicting each other. *Assimilation*, on the other hand, "[uses] techniques from the first two categories

¹⁶ Fogelsanger, Allen. "Music Composition for Dance in the Twenty-First Century: Questions about the Dance/Music Relationship", conference paper presented at the Stockholm 1998 International Guild of Musicians in Dance (IGMID) conference. <http://www.armadilloproject.com/AF/dancewriting.html> (accessed December 6, 2011).

¹⁷ Elizabeth Sawyer, *Dance with the Music: The World of the Ballet Musician* (New York: Cambridge University Press, 1985), 24-28.

Sawyer further states that "dance and music are allied, not only because they move in time, but because they spring from a common human source, related to time—the rhythm of daily life." She also assumes that "as human life became more intricate, so also did dance and music evolve into complex, sophisticated, highly controlled organisms, yet the same physiological rhythms govern our bodies today as governed those of our primitive ancestors." (Sawyer, 15)

¹⁸ Nicholas Cook also discusses how media can relate to one another and then presents three models similar to Sawyer's. See page 12 for further information.

¹⁹ An example for the music visualization in ballets can be seen in: *The Sleeping Beauty*, music by Peter I. Tchaikovsky, choreography by Marius Petipa, Popejoy Hall, Albuquerque, February 1, 2012, performance by the "Moscow Festival Ballet." Whenever the Lilac Fairy moves her arm upwards (she is holding a lilac flower in her hand), the movement is accompanied by an upward arpeggio in the harp. The music is literally visualized here.

[and] transcends their limitations through use in a different context. . . . The movements are often not even tied to obvious musical events,”²⁰ giving room for varied possibilities. An example of assimilation can be seen in Tudor’s *Jardin aux lilas*;²¹ here, Tudor uses synchronization as well as opposition as artistic devices. Countless possibilities for music and dance relationships can be found in the middle of this spectrum, each idea driven by a personal artistic concept.

²⁰ Sawyer, 26-27.

²¹ Antony Tudor, et al., *Jardin aux lilas* [rear view], DVD (New York: Julliard Film, 2005). The following is a link to an excerpt of the piece:
http://www.youtube.com/watch?v=e9IELhm4sbQ&feature=results_main&playnext=1&list=PLF88B70AC52020C36 (accessed March 21, 2012).

Review of Relevant Research

One way of thinking about the relationship between music and dance is presented in Nicholas Cook's *Analyzing Musical Multimedia* (1998). Cook discusses how media can relate to one another and then presents three basic models: conformance, complementation and contest.²² Those relationships can be applied to music and dance as well (although not mentioned by Cook). If music and dance are conformant, they are so similar as to almost not require the other. If they complement one another, they are "neither consistent, nor contradicting"²³ and thus are both different and similar enough, so that the whole is greater than the sum of the parts. If both art forms are in contest, they create space for themselves by contradicting and deconstructing one another. Contemporary choreography in response to music can show those three different distinctions.

In one of the most established studies in the field of music and dance cognition, Krumhansl and Schenck (1997) investigated if a choreographic work by Balanchine could reflect the structural and expressive qualities of a divertimento by Mozart.²⁴ In a perceptual experiment, participants were asked to indicate section ends, new ideas, tension, and emotions. Some subjects heard only the music, some saw only the dance, and some experienced both

²² Nicholas Cook, *Analyzing Musical Multimedia* (Oxford: Clarendon Press, 1998), 98-106. For a detailed description of the "Three Basic Models" please consult Appendix C.

²³ *Ibid.*, 103.

²⁴ Carol L. Krumhansl, and Diana Lynn Schenck, "Can Dance Reflect the Structural and Expressive Qualities of Music? A Perceptual Experiment on Balanchine's Choreography of Mozart's Divertimento No.15," *Musicae Scientæ* 1 no.1 (Spring 1997): 63-85.

simultaneously. Results revealed that viewers who saw the dance alone and listeners who heard the music alone did show similarities in their interpretations of temporal organization and the representation of emotions, suggesting that Balanchine's choreography to some extent mirrored Mozart's divertimento in terms of both structure and character.

However, those results are not astonishing, since as described above, Balanchine was indeed *the* musician-choreographer. He was very aware of section endings and new ideas, and his goal was to visualize those musical features in his dance. Furthermore, Mozart's divertimento is a clearly structured piece of music, where section endings or new ideas are more recognizable than in a non-classical work. The divertimento, in other words, has an easily analyzable structure, and Balanchine himself had a clear tendency to analyze, and to choreograph analytically. This study, then, simply demonstrates that Balanchine did align his choreographical phrasings with Mozart's musical phrasings, and his emotional resonances as well—and that listener-viewers attune to this.

It is crucial to know, however, if audiences can recognize such cross-media resonances not only in the works of analytical choreographers, but also in the works of intuitive choreographers. Balanchine was so musical that he may have been simply mirroring the music without thinking about it (unlikely, but possible). To the extent that this is true, how an intuitive choreographer would respond to a Mozart Divertimento would still be unexplained. Would such a

choreographer *be able* to so closely mirror the phrase structure of the Divertimento? What are the boundaries of divergence from Mozart's phrase- and emotion-structure that might be seen across a survey of multiple intuitive choreographic responses to this piece? As stated above, most student choreographers today necessarily work intuitively rather than analytically because of the comparatively limited extent of their music-analytical skills (as demonstrated by the training required of them at university dance programs in the U.S.). It is essential to know if choreographers that respond intuitively also respond as closely as analytical choreographers to musical structure and musical affect. To learn this, studies of intuitive choreographic responses are necessary.

A second study of relevance to the current project was conducted by Robert W. Mitchell and Matthew C. Gallaher.²⁵ The researchers examined if a listener-viewer would be capable of matching a piece of music with its intended choreography from memory. Notably, they employed less predictable music²⁶ than Krumhansl and Schenck, and they used a contemporary style of choreography instead of ballet. Results revealed that certain elements such as pace, fluidity, and choppiness can be perceived and remembered in both music and dance, even when they were not presented simultaneously. Whether those choreographical responses were created analytically or intuitively was not

²⁵ Robert W. Mitchell, and Matthew C. Gallaher, "Embodying Music: Matching Music and Dance in Memory," *Music Perception* 19 no.1 (Fall 2001): 65-85.

²⁶ The musical selection included three works (Gallaher and Mitchell, 70):

- John Cage "Amores, Part 4, Solo for Prepared Piano" (1989),
- Peter Gabriel "Sandstorm" (1989), and
- David Lanz "Spiral Dream" (1988).

obvious from the description of the material used for this study. Because the choreography was contemporary rather than balletic, because the music used was not restricted to the classical genre, and because the choreographic method employed was at least potentially intuitive, this study may be more applicable to the way choreographers tend to work in dance departments in the U.S. (and in related scenarios).

In a third publication of relevance to the current project, Allen Fogelsanger (composer) and Kathleya Afanador (choreographer)²⁷ claimed that an audience can perceive dance and music as two art forms that “go well together,” as can be seen in the research results described above. On the other hand, an audience can also perceive music and dance as “not going together well,” as can be seen in the Cunningham-Cage collaboration where “the audience is not following independent musical and dancing objects simultaneously, but following a dancing figure. . . against a sonic ground.”²⁸ However, in practice, the incongruence between music and dance which composer and choreographer try to achieve through a conscious choice of sound and movement can still be perceived as *intended* by the audience, since there are coincidental congruencies between music and dance.

The first study is valuable because it reveals that audiences can perceive tension and section endings in both music and dance, but it is limited in the sense

²⁷ Allen Fogelsanger, and Kathleya Afanador, “Parameters of Perception: Vision, Audition, and Twentieth-century Music and Dance” (paper presented at the Congress on Research in Dance – 38th Annual Conference, Tempe, AZ, Nov. 2-5, 2006).

²⁸ *Ibid.*, 11.

that it only focuses on a single, male, highly analytical choreographer. The second study is valuable because it shows that listener-viewers can match music and choreography from memory, and because it uses both contemporary music and choreography, but, as with the Fogelsanger and Afanador paper, the focus is exclusively on listener perception. Thus, these studies can serve as a basic point of origin in the investigation of music and dance relationships. However, none of them addresses the crucial question of how choreographers respond to music—particularly intuitive choreographers.

Analytical Methodology

A practical strategy for analyzing choreographic-musical relationships is described in Paul Hodgins's book *Relationships between Score and Choreography in Twentieth-century Dance: Music, Movement and Metaphor*.²⁹ In his third chapter "A Paradigm for Musical Analysis," Hodgins first defines two broad relationships between music and dance, intrinsic and extrinsic:

Intrinsic relationships emanate from the realms of musical and kinesthetic gesture. They involve the iconic cross-disciplinary reflection of highly ostensible and idiomatic elements, their interpretation largely unprejudiced by context.

Extrinsic relationships admit the presence of an implied third partner to the choreomusical marriage – an external element such as a characterization or narrative event which is acknowledged in some way by both music and choreography.³⁰

²⁹ Hodgins, 25-30.

³⁰ *Ibid.*, 25.

The analyses presented here focus predominantly on intrinsic relationships. These are subcategorized by Hodgins as rhythm, dynamics, texture, structure, mime, and quality (tessitura, timbre, the “degree of sharpness/smoothness” and the “degree of dissonance/consonance”³¹). The importance of this set of distinctions for the current project is that they provide tools that are common to the analysis of both choreography and music.

The most relevant research for my thesis work was done by Zohar Eitan and Roni Y. Granot, which set out to investigate empirically “the ways listeners associate changes in musical parameters with physical space and bodily motion.”³² Participants in this experiment were asked to envisage an object which could move around in their imagination in response to musical stimuli. Results showed that dynamics and pitch contour affected motion imagery the most. Dynamics were associated with distance and speed. A *crescendo* was associated with higher and increasing energy, approaching motion and an increase in velocity; a *diminuendo*, on the other hand, related to an imagination of descending and moving-away motion. Furthermore, pitch contour was related to verticality, in that pitch rise evoked the imagination of an increasing distance while pitch descent related to decreasing distance. The research revealed another important finding: “Listeners who associate a musical stimulus with a particular kinetic quality often *do not* associate the inverse stimulus with the

³¹ Hodgins, 27.

³² Zohar Eitan, and Roni Y. Granot. “How Music Moves: Musical Parameters and Listeners’ Images of Motion.” *Music Perception* 23 no.3 (2006): 221-47. This paper provides a review of important research in the field of music and motion.

opposite kinetic quality” (Eitan and Granot, 238).³³ Since dancers can be thought of as listeners, the results of this study can contribute to an understanding of how music is perceived, and explain which musical features lead to which bodily motions (even if only imagined).

Although this study demonstrates that perceivers are sensitive to the music-dance relationship, and that they have an internal movement imagination when confronted with certain musical stimuli, it is again limited to only listeners’ responses. The research presented in the next chapters was intended to go beyond studying listener responses and instead to examine the creative processes of choreographers themselves.

³³ For more information on the results consult Appendix D.

Chapter Two

Study 1

Purpose

In order to find out how currently active choreographers hear and interpret music, Study 1 was conducted in the form of a survey. The main goal was to learn about how choreographers incorporate music into their dance creation, and to which features in the music they respond most. Furthermore, the survey was aimed at discovering how choreographers define the relationship between music and dance, what importance music has for them, if music or movement comes first in their creative process, and how a collaboration between choreographer and composer/musician is characterized.

Method

Fourteen professional choreographers from Europe, Brazil, and the U.S. were asked to participate in this survey. The participants first received an email explaining the purpose of this study as well as the work load that would be expected of them. This email can be found in Appendix E.

Choreographers who agreed to participate received a survey package, either through mail or email. The mailed package included a letter, a questionnaire, a CD with four short musical tracks, and a prepaid envelope. The emailed package included the letter and the questionnaire attached in word

documents, and the musical tracks in mp3 format. Participants had approximately one month to complete and return the questionnaire.

Appendix F includes a complete blank questionnaire. The prefatory part of the survey asked choreographers to provide general information about themselves, such as how long they have been choreographing, in which dance genre they tend to work, if and how long they have played a musical instrument, and if and to what extent they have studied music theory.

In Part 1 of the inquiry, the participants answered general questions about their perception of the relationship between music and dance and about their particular ways of working with music when choreographing.

In Part 2 of the survey, specific questions were posed concerning four short musical excerpts taken from the second movement (*Assez vif, Très rythmé*) of Maurice Ravel's String Quartet in F Major.³⁴ The participant choreographers

³⁴ Maurice Ravel (1875-1937) completed his only String Quartet in April 1903. It was originally intended as a submission for the Prix de Rome and a competition at the Conservatoire de Paris. However, his work was rejected by both organizations. Ravel thereafter never returned to the conservatory, but still continued working with his admired teacher Gabriel Fauré to whom the Quartet is dedicated. It is supposed that Ravel took Claude Debussy's string quartet, which was composed only ten years before, as a model for his own.

The Quartet's structure is cyclic, which means that certain motifs and themes are used throughout all four movements. The movements are:

1. Allegro Moderato - Très Doux;
2. Assez Vif, Très Rythmé;
3. Très Lent;
4. Vif et Agité

The composition was premiered on March 5, 1904 by the *Heymann Quartet* in Paris.

See the following books for more information on the String Quartet:

Vladimir Jankélévitch, *Ravel*, (Utrecht, Netherlands: Pictura-Boeken. Het Spectrum, 1959), 23-25.

Gerald Larner, *Maurice Ravel*, (London: Phaidon Press Limited, 1996), 71.

Roger Nichols, *Ravel*, (New Haven and London: Yale University Press, 2011), 52-53.

Stephen Zank, *Irony and Sound: The Music of Maurice Ravel*, (Rochester, NY: University of Rochester Press, 2009), 8, 70, 98.

were asked to describe what about the music stands out and what sort of movement possibilities the music would suggest.

Ravel composed several pieces explicitly for dance, among others *Daphnis et Cloé* (1912), *La Valse* (1920), and *Boléro* (1928). Numerous ballet choreographers such as Fokine, Ashton, and Balanchine have also used Ravel's music as inspiration for creating dances. The String Quartet, however, is not conventional dance music. Ravel most likely did not compose this work with dance in mind. When composers write music explicitly for dance, they presumably have a different approach to creation than when not writing for dance. They may, for example, tend to compose phrases of more predictable 4- and 8-bar length, so as to present a clear rhythmic structure for the dancer. Thus, this is one way in which writing for dance might limit the composer's expressive palette. If the Quartet was not intended as dance music, and thus, did not limit Ravel, then choreographers may have been less likely to be guided in a certain direction (e.g. the "obvious" recognition of an eight-bar phrase). They might instead be free to respond to *any* musical feature. Thus, how choreographers respond to the Quartet might show more clearly to which musical features choreographers respond generally when not limited by the composer's "dance concept."

The movement of the Quartet used (the second), a scherzo, is organized in a ternary form of A-B-A'. Notably, "[the] vertical conflict of meters" and "Ravel's

rhythmic counterpoint”³⁵ provide a variety of rhythmic ambiguities. Moreover, the change of characters between the quick A-Part and the extremely slow B-Part—along with the wide range of tempi, the extensive exploration of harmonies, varied dynamics, contrasting articulation and motivic as well as thematic work—make this piece effective and challenging for a listener and likewise a choreographer. Four excerpts were chosen due to the following musically interesting attributes:

Excerpt 1 is the beginning of the movement.³⁶ Figure 1 presents the excerpt’s first two measures, referred to later as the a-theme.

The image shows a musical score for the first two measures of the a-theme. It consists of four staves: Violin I, Violin II, Viola, and Cello/Double Bass. The time signature is 3/4. The first measure is marked with a 3/4 time signature and a 3/2 measure bracket. The second measure is marked with three 2/4 time signatures. The score includes dynamics like 'f' and 'pizz.' (pizzicato). There are also annotations for '3/4' and '6/8' on the left side of the score.

Figure 1. Mm. 1-2 from the *Assez vif, Très rythmé*, second movement of Maurice Ravel’s String Quartet in F. Published by G. Astruc, [1905] in Paris; later reissued by Durand; reprinted by Dover Publications, 1987 in Mineola.

Note: The choreographers did not see the score at any time.

³⁵ Zank, *Irony and Sound*, 98.

³⁶ All complete excerpts are in Appendix G.

This passage is metrically ambiguous, with possible readings in 6/8, 3/4, and 3/2. Ravel indicates two different time signatures at the beginning of the piece: compound 6/8 and simple 3/4. In the first two measures, the 6/8 time signature can be found in violin 2 and viola. There are six eighth notes per measure with a dotted quarter note as beat. Violin 1 indicates 3/4, thus, three quarter notes per measure. The first two measures (the first phrase) can also be interpreted in 3/2 (three times 2/4). Furthermore, the *forte* pizzicato marking in all instruments gives the passage a particular character.

Excerpt 2 is the second theme (referred to later as the b-theme) of the A-Part. It is in Dorian mode in contrast to the Aeolian a-theme seen in Excerpt 1. All instruments play *arco*, *bien chanté* and *pp* or even *ppp*, thus, providing a contrasting mood to the opening. Additional rhythmic ambiguity as well as distinct motivic work and articulation make this excerpt intriguing.

Figure 2. Ravel, String Quartet, II, mm. 13-14.

The A-Part contains two main themes: the a-theme, played pizzicato (Figure 1) and the b-theme played arco which is first presented from measure 13 onwards (Figure 2). Figure 2 shows the beginning of the b-theme in violin 1, which will be repeated in the viola in measure 17. In measures 21 to 25 both themes alternate each measure. See Appendix G – Excerpt 2 for more details.

Since both themes are simultaneously present, a point to consider during analysis is whether the choreographers mention one, the other, or both in their written response.

Excerpt 3 is a shorter passage from the previous excerpt. The choreographers were asked how they would count here.

The image shows a musical score for Ravel's String Quartet II, measures 26-29. It features four staves: Violin I, Violin II, Viola, and Cello/Double Bass. Above the Violin I staff, a bracket groups three measures with boxes labeled '2/4 + 2/4 + 2/4'. Above the Viola staff, a bracket groups the first two measures with a box labeled '6/8'. Above the Cello/Double Bass staff, a bracket groups the last two measures with a box labeled '3/2'. The score includes dynamic markings like 'mf' and 'ff', and performance instructions like 'arco?'.

Figure 3. Ravel, String Quartet, II, mm. 26-29.

Again, this passage reveals rhythmic ambiguities: violins 1 and 2 seem to be in 2/4 or 3/2 (three times 2/4). The viola is ambiguous in itself: the first two measures are in 6/8 and the following two amount to three bars of 2/4 (or one bar

of 3/2). The ascending scale of the cello can be thought of as “un-interpreted,” since it could suggest any of the possible meters. The dynamic markings indicate a 3/2 time signature (two measures *f*, and two measures *ff*, followed by *p*).

Excerpt 4 deals with the beginning of the middle section, which contrasts with the A-Part in many ways: the timbre is different (mutes are used), the tempo is much slower, and both metrical and harmonic structure are highly ambiguous.



Figure 4. Ravel, String Quartet, II, mm. 88-93, the beginning of excerpt 4.

Although notated in the key of B-flat major (or potentially G minor) the main theme in the cello is effectively in D minor. Viola and second violin provide a lot of chromaticism. In the circled section of Figure 4 the global time signature is 3/4, but locally the phrasing slurs give the sense of three bars of 2/4 (i.e., one bar of 3/2)—just as in the second half of Excerpt 3. This vagueness of structural and harmonic organization makes many different sorts of movement responses possible.

Results³⁷

Responses to the general questions of Part 1 presented the different approaches choreographers use to incorporate music in their working methods. However, answers to the specific questions of Part 2 were surprisingly consistent in the imagined movement interpretation of individual musical passages.

Detailed Results from the Questionnaires and Discussion

Ten female and four male choreographers with an average age of 47 participated in the survey. They had been choreographing, on average, for 27 years in various genres, prominently in modern and contemporary dance, but also in film, jazz, dance-theatre, musicals, and ballet. Ten of the participants had studied a musical instrument for an average length of 4.7 years. Nine choreographers had studied music theory, and one choreographer had earned a minor in musicology. Altogether the average number of months of musical training was eight. The content of these studies included: music notation, rhythm, modes, scales, analysis of whole pieces, sight singing, the history of western music, bead game theory, and contemporary composers. The following is a summary of responses to each question.

³⁷ Completed questionnaires by each choreographer are in Appendix H.

Part 1:

1.) If you want to choreograph a new piece, how do you choose your music?

Choreographers showed very different approaches when choosing music for a dance creation.³⁸ Almost every participant pointed out the variability depending on various factors from exterior circumstances, such as the place of a performance, the number and level of dancers who would be available, and other restrictions related to directors' wishes.

The two most common strategies revealed by the responses might be termed "music-primary" and "music-secondary." The "music-primary" group of choreographers stated that it would generally be a musical piece which inspired them to respond with movement. As Patricia Dickinson said, "The music finds me." Music is the first choice and a dance unfolds in the choreographer's mind while hearing the music. Some choreographers worked "music-first" only in certain cases, such as Jennifer Predock-Linnell, for whom music would be necessarily chosen first only if the choreography were to be "rhythmically driven."

For the "music-secondary" group, music was of subordinate interest and had an accompanying or supporting character. Diverse principles such as a choreographic or thematic movement idea or concept emerged first, and the choreographer then looked for music which expressed this first creative thought.

³⁸ See Katherine Teck's book *Music for the Dance: Reflections on a Collaborative Art* (New York: Greenwood Press, 1989) for more information on how well-known choreographers such as Agnes de Mille, Doris Humphrey, Paul Taylor, Hanya Holm, Mary Wigman, or Erick Hawkins among others, incorporated music into their dance creation.

Sometimes a certain mood could influence the choreographer to search for a piece of music with a matching mood. “If a piece is strong enough to be used, it can be played in the background for several hours,” as Jacqueline Garcia said. In Jennifer Predock-Linnell’s case, a dance would be created first and then the collaboration with a composer would follow.

Other choreographers could be placed in the middle of the two groups. For Zoe Knights, music could be used as inspiration before or *during* the creation of the dance; but this music would not be included in the final product. Music helped to create a certain atmosphere for a dance piece. Moreover, music could be functional in the sense that it could give beats and cues for dancers. In Rachel Germond’s working process, several pieces of music were chosen and then the choreographer experimented with the music to create a musical score which fit the dance outline.

Martina Morasso had yet another and quite different approach. For her, music should be in strong contrast to the movement idea and should only have an associative similarity. Additionally, music ought to provide a structural framework (form) on which the choreography can rely. Morasso described her working method in the following steps: First she works purely mentally, then she begins moving in silence, then she adds music, and finally she starts modifying the dance in relation to the music.

2.) Have you ever collaborated with a composer? If yes, please describe the collaboration process.

Twelve of the choreographers had collaborated with a composer before, two had not. Commonly, the term *collaboration* describes an “action of working with someone to produce or create something,”³⁹ and it refers to working *jointly* towards a common goal.

In general, choreographers’ responses can be categorized into three different groups: 1. “dance first—music responds,” 2. “music first—dance responds,” and 3. “give-and-take collaboration.”

About half of the choreographers’ answers revealed a collaboration to be a process in which the composer wrote a piece of music to a dance the choreographer had already created before (“dance first—music responds”). The choreographers told the composer which scenes they had in mind, or they showed the composer the already created dance, whereupon the composer modeled musical tracks. This music was used in rehearsals, and the choreographers gave feedback on what worked for their choreographic concept and what did not. At this point the composer would adjust the musical score. In other collaborations, choreographers had an idea for a style of music they wished to use and asked a composer to create this score for them. The “dance first—music responds” collaboration is effectively the rarest of the three types. It is an

³⁹ Oxford Online Dictionary
<http://oxforddictionaries.com/definition/collaboration?region=us&q=collaboration> (accessed March 7, 2012).

abstract case at one end of the continuum, and it can become considerably extreme in cases where the dance *does not* respond to the music at all. Rachel Germond described such an “unsatisfying collaboration,” in which the dance was choreographed beforehand and then videotaped, and the music added later. “This was not successful,” Germond said, “because I really disliked how the music completely changed the interpretation of the dance.”

Interestingly, some choreographers perceived “dance first—music responds” collaborations as “give-and-take” collaborations. They described situations, in which the composer would adjust the score according to the dancer’s wishes, as collaborations in which music and choreography would develop “side by side.” The collaboration process was perceived as one in which the “music was developed together,” although, according to the previous definition of collaboration, it was not.

In “music first—dance responds” collaborations, the composer already had a concept in mind and clear ideas of what the music should depict in the dance before entering into the collaboration. The musician then asked the choreographer to create a work to this image. Donna Jewell gave an example of such a collaboration: “A composer approached me and told me his concept and what he believed the music portrayed. I created a dance based on the atmosphere of the music and on the concept of the composer.”

A “give-and-take collaboration” seems to originate when composer and choreographer previously agree to a mutual point of origin, for example, a fixed form, such as a poem, to which both create their work. Rahel Weißmann gave an example for such a collaboration, in which dance and music would truly grow and develop side by side. First she mentioned the prior condition: “A collaboration depends a lot on the musician’s openness for the needs of the dance.” This condition should also count for the dancer. The first step in the collaboration is a presentation of individual working methods, then the development of a concrete theoretical plan, followed by a practical phase in which both artists improvise and comment on each other’s ideas. Thus, “the choreographer suggested which movements she would like to choose here,” says Weißmann, “or the composer described which movement he would like here,” thus, both artists work *jointly* towards a common goal.

Choreographers pointed out that a problem they faced during the collaboration process is that both artists would not engage equally in the process and/or were unwilling to try each other’s ideas. Vladimir Conde-Reche said, “Expectation and Ego, that always has to be clear.” Georg Hobmeier referenced the problem of “an unfortunate combination of two spirits wanting to create one thing with two minds,” while he was searching for a new way of collaborating. Composer Richard Cameron-Wolfe further commented on the difficulties of a successful collaboration: “Rarely is a ‘collaboration’ between choreographer and composer really a collaboration, though, since the limitations of the

choreographer's musical training and musical awareness make it problematic to articulate sophisticated musical wishes to a composer. Add to that the even more limited knowledge of dance possessed by most composers, and it is difficult to see how the outcome could be mutually satisfying."⁴⁰

3.) What comes first in your creative process, the music or the movement? This means: Do you begin choreographing phrases and then look for music that fits them? Or does a musical piece inspire you to create movement to it?

From the responses, it was not possible to give one approach prominence over the other: the majority of the choreographers worked both ways. For some choreographers, music was the primary inspiration; they felt the need to respond to music with movement. A greater number of choreographers, however, started the working process with a concept for a theme, an intention for the piece, or the actual movement. Then they looked for a musical piece which expressed their idea and, in turn, further inspired the creation of the dance. Georg Hobmeier preferred starting with scenarios and concepts instead of the movement or the music. "I then pile everything on top of them, from movement material to random video footage to books to films, etc.," he said.

⁴⁰ Wolfe, e-mail message, 2012.

4.) How would you describe the relationship you see between music and your choreography?

Two choreographers mentioned three possible relations between music and their choreography: 1. Music comes first and inspires the movement, 2. Dance is created first, and music is used to embellish the creative idea, and 3. Music and dance are independent partners. The path to pursue depends on the choreographer's intent. (See also question #2.)

Rahel Weißmann further elaborated on the idea of music and dance being two self-standing entities: audience members would have the opportunity to find their own interpretation within this tension that could appear between the two art forms. Donna Jewell wanted her choreography to “serve the music and relate deeply to it,” where music had been her conscious first choice. Patricia Dickinson echoed this in her approach: “the choreography must complement the music and emphasize the changes in the music.” Jim Self, on the other hand, worked “with, against, in and out of the music.” Zoe Knights described “the very profound relationship music has to the work [she] creates.” Music was “an impulse for movement or for [inspiring] images.” Whether movement visualized the music or contradicted it, another level of communication with an audience would result. Rachel Germond liked to use music, especially popular, well-known music, to which the audience could relate through their own individual memories. Vladimir Conde-Reche mentioned the ubiquitous presence of music: “There is always music. The silence is music.” For him, music, dance, lighting, costumes, and the

performance space should be independent entities. “The world around us is like a choreographed work,” says Conde-Reche, “that changes daily according to the placement of each layer.”

5.) How important is music for you?

Almost all the choreographers described music as an impulsive force playing an essential role in the dance creation. Music illustrated and propelled a work forward. According to Zoe Knight, “just concentrating on sound and the shifts in tempo, dynamics, color, spirit, rhythm, etc. helps to crystallize the essential elements of [the] work.”

For Martina Morasso, music was only of importance “if it [was] a strong partner.” Otherwise moving in silence was preferred. Three of the choreographers additionally mentioned that silence would be a conscious musical choice as well.

Georg Hobmeier expanded the term “music” to include sound and acoustics, and Vladimir Conde-Reche described the equal importance of music and all the other components of an art work.

6.) How would you place yourself on the following continuum? Why?

Balanchine/Stravinsky ----- Cunningham/Cage	
(The choreography must express or represent the music.)	(The music and the dance should be independent.)

Nine of the choreographers stated that they worked both ways, depending on what kind of work was created; working both ways, they thought, challenged and freed the artist.

Three choreographers placed themselves towards the Cunningham/Cage end, as they believe in the creative independence of both art forms.

The other two artists gave more importance to the meaning and inspiration of the music, and placed themselves towards the Balanchine/Stravinsky end. However, all agreed the choreography should still be strong enough to stand on its own.

7.) Which factors in musical sound and structure influence you the most?

(e.g. Rhythm, Pulse, Form, Structure, Melody, Mood, Timbre, Motives, Themes, ...)

The majority of the participants identified rhythm and mood as the most influential factors; structure and melody were important as well. Form, dynamics,

themes, and instrumentation, however, were less significant as can be seen in the exact results:

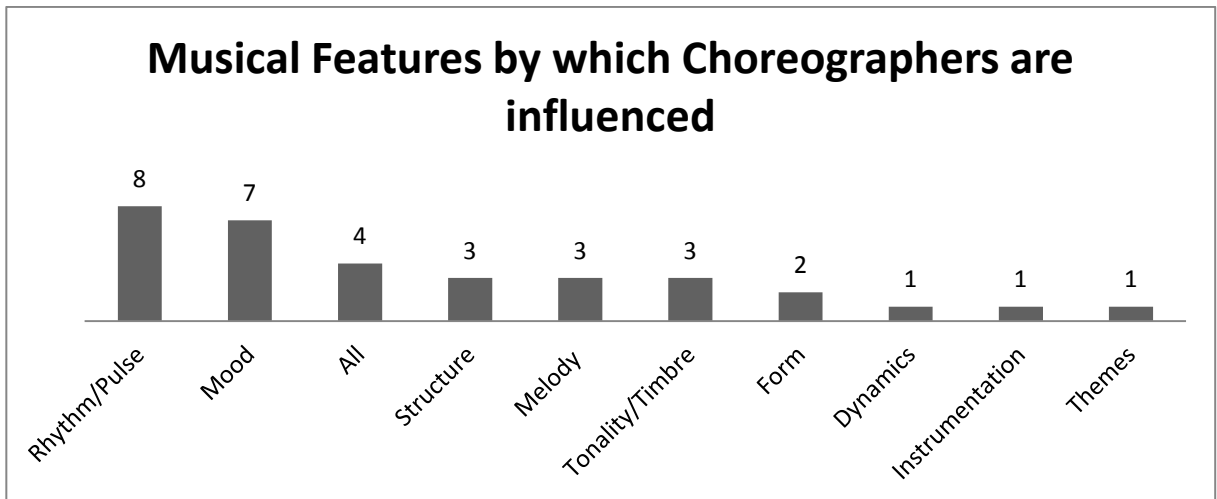


Figure 5. Diagram of Musical Features by which Choreographers are influenced.

The influence of rhythm/pulse was mentioned eight times and, thus, appears to have played the most important role. The priority of rhythm could have been expected, perhaps, since, in many dance classes, music serves primarily as time-keeper. Dancers are very rarely instructed to follow, for example, the melody, the dynamics, or the form, as those features are not “measurable.”

The second most important musical influence for choreographers was the mood of the music (mentioned seven times). The term *mood* is rather abstract; commonly it describes “a temporary state of mind or feeling.”⁴¹ It is conceivable that mood is even more important than rhythm, as suggested by Richard Cameron-Wolfe: “[Choreographers] would not consider the rhythm of a piece [to

⁴¹ Oxford Online Dictionary
<http://oxforddictionaries.com/definition/mood?region=us&q=mood> (accessed March 7, 2012).

be of primary importance], if the mood was inconsistent with [the feeling they wished to express]. It is true that choreographers mention rhythm [as influential], but they have already filtered [the piece] through a ‘mood censor’.”⁴²

Interestingly, only one choreographer indicated themes, and no choreographer indicated articulation or motivic work as influential sources. Nevertheless, most of the participants particularly responded to articulation and motives as described in Part 2 of the questionnaire (Excerpts 1 and 2). This leads back to the introductory observation that most choreographers respond to music in an intuitive rather than an analytical way, i.e. without explicitly knowing the reasons for a movement choice.⁴³

8.) Have you ever had the chance to work with musicians and have them perform live on stage with dancers?

If so, how does live music influence the interpretation of your choreography?

Every participant experienced live music as part of a performance. Three of the artists expressed that it could be difficult and challenging for the dancers; a certain level had to be reached which allowed them to react to live music in a flexible way. For Jacqueline Garcia, “live music [does] not change the

⁴² Richard Cameron-Wolfe, interview with author, March 19, 2012.

⁴³ Remark: Dynamics, and articulation were not mentioned in the question; this could be a reason why nobody referred to those aspects.

interpretation of the choreography as much as it change[s] the variability in the dancers' ability to correctly execute the choreography due to changes in timing."

According to Donna Jewell, in an environment where live music is used, "the interplay between choreography and music is a living thing to be . . . embraced." Martina Morasso described an occasion in which she had been part of an improvising band, as a "moving instrument." "There is nothing like dancing to live music," said Patricia Dickinson, "I think it invigorates dancers!" According to the choreographers, live music gives a performance liveliness, spontaneity, and stimulation. Jennifer Predock-Linnell said that "it is a wonderful world of give and take, [where] both have to be in tune with each other." "The element of live performer opens a new world of possibilities to interpretations [for] the audience" (Vladimir Conde-Reche).

Furthermore, live music on stage confronts the choreographer with a challenge: How can musicians be integrated into the performance without distracting the audience from the dance movement?

What sorts of interactions do you see between musicians and dancers?

Choreographers saw the following interactions: mutual modification, influence, exchange, support, challenge, contrast, sharing, communication, expressing something abstract, the change of leading and following, dialogue, intensity, and what Jennifer Predock-Linnell called "the whole emotional gamut." Jim Self imagined "dancers as musicians, musicians as dancers, dancers

illustrating music, musicians moving in and around dancers, [and] any combination of the [previous].” For Zoe Knights, “the musician usually has the role of observer and intelligent and creative supporter . . . , and the dancers usually have to increase their concentration to disregard the sound around them and this creates a certain, usually meditative, concentration which in my opinion greatly strengthens the choreography.”

Only “in the ballet world, there [would] unfortunately not [be] a lot of interaction,” said Jennifer Boren.

The following is a summary of responses to each specific question with regard to the four musical excerpts taken from Maurice Ravel’s String Quartet.

Part 2 (Responses to the four Ravel excerpts):

Excerpt 1

Two of the choreographers mentioned that they would not use this music for contemporary dance choreography in the twenty-first century since it would be outdated and conservative and, thus, would be best suited for a neo-classical dance. If used today, it would have to be interpreted as ironic.

What stands out in the music?

Regarding rhythm, meter, and tempo, choreographers seemed to have a similar and clear perception of “the fast tempo, driving pulse, driving forward

motion, and the (strong) rhythm.” Furthermore, choreographers referred to the articulation throughout; five found the “pizzicato/plucked strings/plucking sound” considerable, and four noted the staccato sound.

In addition, four participating artists recognized the formal structure, mainly the ending of the first twelve measures. They described it as being “a sensation of suspense at the end of the section,” “a junction . . . taking place which is leading to an end,” and “a sense of building to a suspense.”

Martina Morasso alluded to an ostinato in pizzicato, and Byron Suber referred to instrumentation, mentioning the “layers of strings.”

The results from Part 1, Question 7 (“Which factors in musical sound and structure influence you the most?”) confirm the fundamental significance of rhythm. However, articulation was not mentioned once in responses to this earlier question (where the option ‘articulation’ was left out), whereas it was acknowledged as an important musical influence in response to this excerpt.

Movement interpretation:

Remarkably, the majority of the choreographers imagined fast footwork for this passage, described as “light footed movement” (Donna Jewell), “sharp footwork [and] intricate detail with feet” (Mary-Anne Santos Newhall), or “very light, quick footed movement” (Jim Self).

Moreover, three choreographers had staccato movements in mind in response to the staccato sound they had perceived: “staccato character embedded in a flow of movement,” “sharp, staccato, distal movements,” danced “*en pointe*,” and “staccato physical accents.” The term “staccato” is a direct borrowing of a musical/sonic term to describe movement quality.

The fast tempo of the music was considered appropriately set by similarly fast movement; and accordingly, the energetic mood was reflected in energetic movement: “lots of energy,” “small jumps,” “fast allegro jumps,” “fast, ballet movements, and on the beat movements.” Moreover, the music suggested upright, vertical body movements, grotesque figures, and an ironic mood. The overall movement interpretation thus went *with* the music. Martina Morasso, however, would “oppose the fast tempo with extremely slow movement [in a] complete legato.”

Three of the artists also had a congruent association concerning directions and space; they would interpret the passage with “a lot of traveling motion,” “alternating directions,” or “watching along the horizon while traveling through space.”

Although choreographers depicted their movement ideas in different ways, movement choices were surprisingly similar, particularly the described footwork in response to articulation and rhythm.

Excerpt 2

Choreographers did not describe the character/features of the music in as much detail as before. Five of them did not talk about musical attributes at all; the others did so considerably less than they did in response to Excerpt 1. Choreographers concentrated more on delineating the movement they would use. If the music was addressed, its perception was more individual than in Excerpt 1. Is this b-theme more difficult to depict in words? It could be possible that participants found describing musical details to be unappealing.

What stands out in the music?

The most relevant descriptions showed that choreographers were able to recognize the motivic work, i.e. the alternation of the a- and b-theme, in measures 21-25: “(melody) is interrupted by strings plucked” (Jim Self), “fast basic tempo, which is overlaid with melody lines” (Rahel Weißmann), “sweepy sound supported by a rhythm underneath” (Byron Suber), or “sense of flow, fluid sounds over short quick, articulated notes” (Jacqueline Garcia).

For some choreographers, the melody or the rhythm stood out, while for others, the accents, the strong impulse on each downbeat, or the “climaxing motion of the music” did.

Movement interpretation:

Almost all of the choreographers associated this section with “(hectic) spinning, spiraling, turning motions” in the space; the section would build up energy.

They furthermore emphasized the flowing and interweaving quality of their movement choice: “fluid torso and arms,” “flow, interweaving of dancers, arms are creating arching pathways,” “continuous sweepy movement, positions that form and melt into each other,” “soft fluid arm movements,” “sweeping movements in upper body contrasted against tight footwork in the lower body,” “plenty of flow,” “swirling motion,” and “something like a river flowing quickly with turns and twists.” Referring to the flowing movement quality, choreographers imagined movements which kept the dancer constantly moving and running, including a lot of traveling through space as well as a lot of lifts.

Two choreographers mentioned the use of diagonals: they would cover huge long diagonals, where most of the traveling would go from downstage to upstage.

Interestingly, most of the participants now depicted the movement of the arms rather than the footwork, which was focused on in Excerpt 1. However, some did mention a particular footwork they would imagine here: “feet are moving faster than arms,” “coursus [fast scuttling *en pointe*].”

In response to Excerpt 1, none of the choreographers referred to how many dancers they envisioned on stage. In response to Excerpt 2, however, some addressed the formation of groups: A *pas de deux* was imagined, as well as partner work with pull and counter-pull. Some choreographers saw the interweaving of dancers, a movement in canon, or a whole group of dancers swirling about the stage.

In order to contrast the character of music, three of the participating artists would choose “movement which does not support the style of music,” or to be more specific, “slow movement to contrast with the speed of the music,” as well as movement that “work[s] against the music; slower than the natural rhythm of the movement.”

The movement interpretations are more varied than in Excerpt 1, probably in response to the greater musical variety. Excerpt 2 is rather intricate as both themes (a- and b-theme) are used, creating rhythmic ambiguity and a sense of mixed articulation.

Excerpt 3

As expected, Excerpt 3 evoked a variety of answers, due to the metric ambiguity of this passage.⁴⁴ Three choreographers mentioned that they usually would not count, but rather follow the flow of the music, or sing the melody.

⁴⁴ The answers to how the choreographers would count are tricky to understand, since only one participant used rhythmic notation in order to write down what she heard. The following is based on best approximations of respondents’ intended meanings.

Four choreographers would count in “6’s”:



Figure 6. Counting in 6

This suggests that those four perceived Excerpt 3 in 3/2.

Jacqueline Garcia notated her rhythmic perception in detail:

3.) Excerpt 3
 This excerpt is a short passage from the previous excerpt. How would you count here?

Counting in phrases of 6, accenting every 2 beats (ie. 1,2, 1,2, 1,2 for each measure)

OR

First measure accenting in 2, 2nd measure accenting eighth notes in 3.

Figure 7. Jacqueline Garcia’s rhythmic notation.⁴⁵

⁴⁵ The sentence on the right hand corner reads: “First measure accenting in 2, second measure accenting eighth notes in 3.”

Three choreographers indicated that they would count “in 4”:

1 & 2 & 3 & 4 & 123 223 323 423

The musical score consists of four staves. The top staff is in treble clef with a key signature of one sharp (F#) and a 2/4 time signature. It features a melody of eighth notes with slurs and accents. Above the staff, counting notation is provided: "1 & 2 & 3 & 4 &" for the first four measures, and "123 223 323 423" for the next four measures. The second staff is marked "arco?" and contains a melodic line with slurs and accents. The third staff contains a rhythmic accompaniment of eighth notes. The fourth staff is the bass line, starting with a half note and then eighth notes. Dynamics include *f*, *mf*, and *ff*.

Figure 8. Counting in 4, version 1

Thus, the first part was perceived in 2/4 (four times) and the second part in quarter notes.

Two choreographers probably followed the beat of the quarter notes:

1 2 3 4 1 2 3 4 1 2 3 4

The musical score is identical to Figure 8. Above the staff, counting notation is provided: "1 2 3 4" for the first four measures, "1 2 3 4" for the next four measures, and "1 2 3 4" for the final four measures.

Figure 9. Counting in 4, version 2

Two of the choreographers seemed to have kept counting the meter of the previous section, which was 3/4:



Figure 10. Counting in 3

Excerpt 4

In addressing the fourth excerpt, respondents commented even less on the music, but used a rather descriptive, abstract and narrative language. It appears that this excerpt evoked a strong emotional response to the music.

What stands out in the music?

Most of the choreographers referred to the slow tempo and the harmonic ambiguity by describing this section as adagio, lyrical, legato, and melodic, revealing a dramatic mood. The excerpt was furthermore depicted as a dreamy sequence, where the music would be affected by the melody and in turn by its tonality. According to Jim Self, “it is the beginning of something.”

Choreographers had a similar idea of the section’s mood. Prevailing attributes were heaviness, sadness, mystery, longing, sentimentality, darkness, somberness, memories, sorrow, or a feeling of wandering. Jacqueline Garcia

described the excerpt as an “image of being lost in a forest.” For Donna Jewell “people [are] searching for each other, but then turning away; [there is] a desire for the individual to open oneself but not receiving a connection/communication to do so.” To Zoe Knights, the section also evoked the “promise of the arrival of something possibly menacing.”

Movement interpretation:

Many choreographers pictured a flowing movement quality (“fluid movements,” “flowing, and merging”) as well as extending and lengthening movements in search for space: exploring inside the joints, rotating, extending body parts, looking for space on stage, using the torso as main initiative of movements, moving on the floor, and rolling across the stage. Furthermore, participants associated evocative gestures with full body movement, extensions, and spirals, long lines in the body, movement coming from the center out, a sense of lengthening, prolonged gestures, as well as deeply melancholic and suspenseful movement with Excerpt 4.

The description “slow” predominated: “slower movement, quiet stage,” “slow earthy movement,” “slower, adagio movements,” or “slowly, tied, calm, and lyrical.” Like in Excerpt 1, the music and the movement interpretation mirrored one another; the slow tempo of the music was considered appropriately set by a similar slow movement. “I can imagine a movement which supports the music in

its speed and active concentration,” said Zoe Knights. Only Byron Suber would choreograph “very fast and dynamic movement to *contrast* the music.”

Regarding group formations (ensembles), choreographers imagined a solo dance, a *pas de deux*; a dance in a small group, or three couples interacting and changing partners. In addition, Jennifer Predock-Linnell visualized a stage which was dimly lit with specials or intensified shadows.

To summarize, the verbal responses to the general questions of Part 1 have shown how different the types of collaborations are that choreographers engaged in with composers, how multifaceted choreographers’ descriptions of the importance and the role of music are, and how individually and diversely choreographers incorporate music into their choreographic processes.

In the second part of the survey, however, we find the opposite phenomenon: choreographers imagined very *similar* movements in response to the four musical tracks. This is interesting, since the choreographers had previously described the relationship between music and their choreography in very different ways. Thus, when it comes to the actual act of dance creation, choreographers’ approaches to respond to musical pieces with movements seem to be in agreement. It could be that the influential musical factors rhythm and mood (see Question 7, Part 1) were guiding all choreographers, and thus, (even if subconsciously), choreographers imagined similar movements.

Study 2

Purpose

A second, exploratory study was aimed at achieving ecological validity in finding which musical elements influence choreographers in their movement choices. Five student choreographers, both undergraduate and graduate students at the University of New Mexico, were asked to create and perform a solo dance in response to the complete *Assez vif, Très rythmé* movement of Ravel's String Quartet; the same piece of music would thus elicit five individual choreographic interpretations. The purpose was to find out if there are general musical features to which choreographers respond, and if there are notable points of agreement among choreographers with regard to how movement choices are made.

Method

The participants were asked to choreograph a solo dance to the second movement of Maurice Ravel's String Quartet in a dance genre of their choice. Each choreographer received a CD with a recording of that movement interpreted by the *Carmina Quartet*. Participants were not informed about any specific details of the study; thus, it could be assured that the student choreographers would respond to the music naturally. They had approximately two months to create their individual solos before showing the works in a live performance in the

Carlisle Performance Space at the Dance Department of the University of New Mexico.

The performances were videotaped with a SONY HVRA1U Digital HD Video Camera Recorder on December 6, 2010. Each video was cut into sections, and then analyzed (somewhat following Hodgins, 1992⁴⁶) for rhythmic, dynamic, textural, structural, and articulative qualities. The complete video analyses of each dance performance can be found in Appendix L.

The following is a description of the participating choreographers/dancers:

- Dancer A: male undergraduate dance major⁴⁷
- Dancer B: female graduate dance major with a focus on choreography⁴⁸
- Dancer C: female undergraduate dance major⁴⁹
- Dancer D: female graduate dance major with a focus on choreography⁵⁰
- Choreographer E: female graduate dance major with a focus on choreography⁵¹

Choreographer E had her work performed by Dancer E, a female undergraduate dance major, whereas Dancers A, B, C, and D choreographed

⁴⁶ Hodgins, 25-30.

⁴⁷ Link to the complete performance of Dancer A: <http://youtu.be/Oj6EnQ4xZf8>.

⁴⁸ Dancer B: <http://youtu.be/C--Ri7CNVFs>.

⁴⁹ Dancer C: <http://youtu.be/lzTvvd7BXEk>.

⁵⁰ Dancer D: <http://youtu.be/S6mbbc0nKfk>.

⁵¹ Dancer E: <http://youtu.be/SzluLrbG45E>.

and performed their own work. Choreographer E and Dancer E will be called Dancer E from now on.

Ravel's music was analyzed along similar dimensions as were the dances, and the results were compared. The complete analysis of the musical score can be found in Appendix K. Appendix L presents a musical description for each section followed by the dancers' responses.

Results and Discussion

Each choreographic interpretation revealed very different and individual approaches to the music. Dancer A presented a "comedic modern dance" in which he was also talking to the audience, Dancer B showed a narrative approach, while the other three interpreted the music with more common modern dance movements. In general, choreographers responded to rhythm, meter, melody, dynamics, structure, contour, timbre, articulation, and motivic work.

This analysis was focused on the same four excerpts that served as musical examples in Study 1, Part 2. Thus, the written responses to the excerpts, from Study 1, were accompanied by the ecologically valid responses of real dance choreographies. Only those dance responses that stand out as notable will be described here.

Excerpt 1

The image shows a musical score excerpt for four staves. The first staff is in 3/4 time, the second in 3/4, the third in 6/8, and the fourth in 3/4. A bracket above the first two staves indicates a 3/2 time signature for that section. The score includes various musical notations such as notes, rests, and dynamic markings like 'pizz.' and 'f'.

Figure 11. Mm. 1-2 from the *Assez vif, Très rythmé*, second movement of Maurice Ravel's String Quartet in F. Published by G. Astruc, [1905] in Paris, later reissued by Durand; reprinted by Dover Publications, 1987 in Mineola. The complete excerpts can be found in Appendix G.

Although one might expect the dancers to have followed the “easier” time signatures of 3/4 or 6/8, which are both stated explicitly in the score, some in fact appear to have heard the passage in 3/2.⁵² Dancer B stretched her arm *out* in m. 1, beat 3, and pulled it back *in* on beat 2 of m. 2, repeating the same movement in mm. 3-4; thus, she probably heard the a-theme in 3/2 (she at least articulated it this way).

On the downbeat of m. 8 Dancer B accented the reaching-out-movement of her arms to stage right, and then responded to beats 1 and 1+ in m. 11 by changing direction, and kneeling down on the floor covering the ears. The most obvious musical event (for almost all choreographers) in Excerpt 1 seemed indeed to have been beat 1 and especially beat 1+ in measures 11 and 12 (Figure 12). Also Dancer E clearly responded to those two eighth notes in mm. 11-12 (Figure 12), first with a *passé*, then with a quick motion into a *grand*

⁵² Excerpt 1 - Dancer B: <http://youtu.be/sIVBjb9n7KA>. The excerpt is taken from the repeat of the a-theme in mm. 40-51, since the video quality was better.

plié in second position (with the arm moving into second position as well); moving out on beat 1, and back to a fifth position on 1+. The tendency to execute short staccato movements instead of legato movements suggests that choreographers respond to the rhythm of the lower parts as opposed to the trills in the upper part.



Figure 12. Ravel, String Quartet, II, mm. 11-12.

Notably, in Study 1, Part 2 the majority of participating choreographers indicated that they would interpret Excerpt 1 with intricate footwork. Here, in Study 2, however, only Dancer E responded with this type of footwork: with a stiff upper body she executed steps on each quarter note.⁵³

Excerpts 2 + 3



Figure 13. Ravel, String Quartet, II, mm. 13-14. Beginning of Excerpt 2.

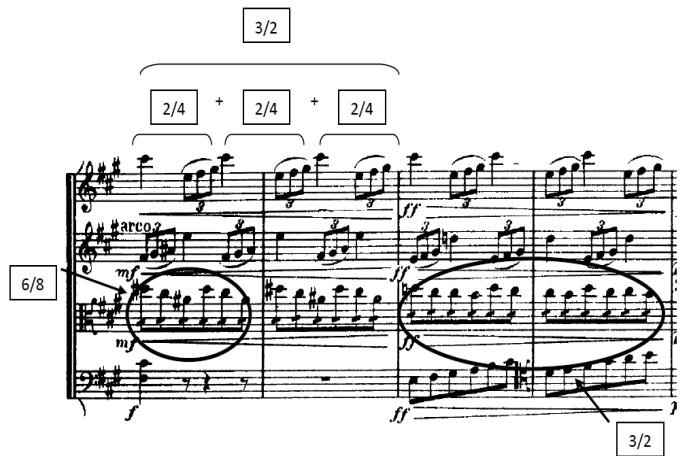


Figure 14. Ravel, String Quartet, II, mm. 26-29. Excerpt 3.

⁵³ Excerpt 1 - Dancer E: <http://youtu.be/sC9PgoFyKpc>.

Whatever movement the choreographers chose in response to the first iteration of the b-theme (in vl1), the choreographers repeated this same movement pattern for the second iteration of the b-theme (in vla). Thus, it seems that such a choice must reflect that choreographers are responding to thematic work. In addition, other features—such as the new timbre (arco rather than pizzicato), the rapidity of the internal parts, the contrast of 6/8 and 3/4, and the Dorian mode—were likely influential.

Dancer A started Excerpt 2 with a *pas de valse*, which emphasized the downbeat of each measure. He then repeated this dance step to the other side, implying a perception of 3/4. The two following measures were interpreted as one unit (with a *développé* to the front on the dotted half note). In response to the repeated b-theme in the viola, the dancer iterated the same movement as before. In mm. 21-25 (alternation of a- and b-theme), Dancer A acknowledged the b-theme first (he hopped ‘in three’, in different poses). Following this, he briefly responded to the a-theme with both feet off of the ground. In the metrically ambiguous measures of Excerpt 3, Dancer A began a new pirouette on each quarter note – three times, hinting at an interpretation of either 2/4 or 3/2.⁵⁴

In response to the violin’s b-theme, Dancer C executed a waving motion with the right arm, and in response to the viola’s repeat, the same motion was performed with the left arm; Dancer C, thus, also perceived the two repeating phrases. In mm. 21-25, she acknowledged the a-theme the second time (m. 24)

⁵⁴ Excerpts 2+3 - Dancer A: <http://youtu.be/HXQpz6Y6fqc>.

by tapping her hands on the floor four times. Excerpt 3 was probably heard in 3/2: she bowed down on the downbeat of m. 26, and again on beat 2 of m. 27 (which would be beat 3 if treated as being in 3/2).⁵⁵

Dancer D responded to the repeating b-theme as well by exercising the same movement twice. Furthermore, in mm. 21-25, she acknowledged the a-theme with a “sitting-up-turning-downstage” movement two times. How she interpreted Excerpt 3 was not obvious from her response, except for the fact that a clear change in movement quality occurred upon the cello’s entrance (ascending scale in m. 28): both of her feet and arms started a rhythmical pedaling/struggling movement.⁵⁶

Excerpt 4

The image shows a musical score for Ravel's String Quartet II, measures 88-93. The tempo is marked 'H Lent (♩ = 46)'. The score is in 3/4 time. The cello part (bottom staff) features an ascending scale in measure 28, which is circled in black. The score includes dynamics like 'mf', 'arco', and 'poco', and the instruction 'mettez la Sourd. très expressif'.

Figure 15. Ravel, String Quartet, II, mm. 88-93, the beginning of Excerpt 4.

In this slow middle section it is very difficult to describe the dancers' perception of meter. Recall the aforementioned experiment conducted by Eitan

⁵⁵ Excerpts 2+3 - Dancer C: http://youtu.be/d050x_XDbj8.

⁵⁶ Excerpts 2+3 - Dancer D: <http://youtu.be/xJDyHnn9pjU>.

and Granot, which revealed that listeners perceive high-level melodic patterns and likewise rhythmic patterns in a slow tempo with greater difficulty than they do in a faster tempo. This can explain dancers' responses to Excerpt 4: while almost all the dancers showed a clear perception of meter and rhythm in the *Assez vif, Très rythmé* A-Part of the work, the slow B-Part (*Lent*) tempo (quarter = 46) obscured the evidence of the dancers' metrical perception.

Dancer C tended to emphasize the cello's long notes (mm. 89-92), each interpreted with a special movement. An accented arm motion to stage right indicated the downbeat in m. 93. Slowly sliding her right arm across her chest again suggests that she heard the long note (cello beats 2 and 3 in m. 93) as important. After a quick turn, Dancer C showed the downbeat of m. 95 (the beginning of the second phrase) with a circling-downward motion of the arms (as a conductor might do). In sum, Dancer C executed slow *and* fast movements which did not align with any particular metrical structure.⁵⁷

Dancer E's overall slow, fluid, and stretched movement interpretation was in accordance with the music's slow character. Likewise, many of the participating choreographers for Study 1, Part 2, had referred to slow and fluid movement in response to Excerpt 4. On the downbeat of m. 91 and on beat 3, Dancer E moved quickly into a *grand plié* in second position, which implied a perception of 3/2 (see the phrasing slurs from mm. 91 to 98). Furthermore, she seems to have perceived the phrase beginning in m. 95, which she expressed

⁵⁷ Excerpt 4 - Dancer C: <http://youtu.be/aVsrCkj7FY4>.

through a *relevé* in second position and rising arms. Rising movement corresponded to a rising melody line both in m. 94 as well as in m. 98.⁵⁸ This echoes Eitan and Granot once again, whose results showed that a rise of pitch was associated with the imagined object moving away from the listener, which is in this case the leg or the arm of the dancer.

In summary, Study 2 has given the intuitive choreographers/dancers the possibility to respond to the complete second movement of Ravel's String Quartet in a natural way. The movement choices for the five individual solo dances have shown that choreographers responded to a variety of musical features, such as meter, rhythm, thematic work, and contour. For each choreographer, different musical attributes seemed to be of importance at certain times, which explains the variety of choreographic responses to this same piece of music. However, in some passages of the music, such as mm. 11-12 (beats 1 and 1+, Excerpt 1) or the repeating b-theme (Excerpt 2) almost all choreographers did indeed agree upon prioritizing, for instance, the rhythm or the thematic work over other musical features. Movement responses thus implied a very similar perception of those particular passages.

⁵⁸ Excerpt 4 - Dancer E: <http://youtu.be/Vokm8m0rwvM>.

Conclusion

The aim of this project was to help to bring light into the mystery of dance creation in response to music. Only a small number of studies have explored the relationships of music and dance, mainly focusing on audience perception and analytical choreographers. In particular, those studies have concentrated on choreographers that were highly musically sophisticated, and hence highly analytical. A major gap in our knowledge concerns the intuitive processes of choreographers—even the ones who choreograph analytically much of the time. Intuition remains a murky and mysterious concept, igniting surprisingly little scientific interest. The aim of my thesis was to change this situation. Nevertheless, I truly hope that there will always stay some shadows and darkness in order to keep the flame of mystery alive.

Results of this study showed that the perceptions and interpretations of music by intuitive choreographers are more differentiated than expected. A variety of musical features can influence choreographers in their movement choices. Rhythm and meter were shown to be of primary influence, followed by mood, dynamics, structure, contour, timbre, articulation, and motivic/thematic work. Although not all choreographers cited those attributes as influential, they did acknowledge them in the actual creation of dances in response to a complete musical work, as assessed by the nature of their movement choices.

Important considerations with reference to choreographers, composers, dancers and audiences have had to be neglected in this thesis. In Study 1, respondents' reflections on the notion of collaboration led to the question how a successful collaboration between choreographer and composer can be defined. Choreographers mentioned collaborations in which they would present an idea for a dance, or even the already created movement, to a composer, who then would create a score. In these types of collaborations, choreographers conceived of the process as one of "music and dance growing side by side." However, was that really the case? The composer seemed to have adjusted the music to the choreographer's wish; consequently, music appeared to become an accompaniment for the dance, and not an equal partner. For future projects, an investigation into "give-and-take collaborations" can be valuable, in order to define concrete principles for a successful collaboration.

Also, sufficient funds may play an important role in determining whether a collaboration between choreographer and composer can take place. Even if a choreographer might prefer to collaborate with a composer over using pre-recorded music, such a collaboration might simply not be affordable.⁵⁹

⁵⁹ In this context, Wolfe noted, that "few of [the] choreographers realize that it is illegal to use commercial recordings for choreography without (a) getting permission from the composer, if living, or (b) the performing ensemble, or (c) the record label – a permission which in many cases comes with a fee. For example, as long ago as 2000, the fee for choreographic use of Arvo Pärt's *Tabula Rasa* was \$3,000! (This case was not even involving a professional dance company charging admission, but rather for use in a university dance concert!)" Wolfe, e-mail message, 2012.

With regard to collaboration generally, while much attention has been paid to that between choreographer and composer, it should be noted that, at least in cases in which the performer is not the choreographer her-/himself, the choreographer and the dancer also enter into a collaboration. The dancer adds an additional interpretative level to the audience-choreographer interaction. Thus, the quality of a dancer's interpretation has great influence on audiences' perceptions of how intuitive choreographers hear and interpret music. The "interpreter" often hides the choreographer's musical perception, and the audience may have only a distant perception of what the choreographer initially intended. Four out of the five participants for Study 2 choreographed and then performed their *own* dance interpretation, so that results indeed revealed the choreographer's intention. But in one case, the choreographer's intention was removed from audience perception, because it was first interpreted by the performer and then re-presented to the audience as a sort of hybrid of the choreographer's *and* the dancer's understanding of the original choreographic intention. For future research, the "masking" of a choreographer's original intention through a dancer's interpretation may be a valuable avenue of investigation.

There are several advantages and disadvantages of the working method of this thesis. For both studies, my project has included a vast majority of *female* intuitive choreographers, in contrast to the studies conducted by Jordan which only focused on *male* choreographers. Furthermore, the choreographers included

here were more of the intuitive type than the analytical, simply in that none were extremely highly trained musically (their average number of years of music theory training being eight months). Future studies could examine the difference between female and male choreographers, as well as analytical versus intuitive, with regard to music perception and interpretation.⁶⁰

Moreover, the approach used for Study 2 had the benefit of not restricting the respondents to only one dimension of response, as in a tap-along study.⁶¹ The dancers were free to express their primary, intuitive responses to the music in any way they saw fit, making for highly ecologically valid response conditions. It seemed useful to give greater rather than lesser freedom to intuitive choreographers, but such freedom makes drawing hard-and-fast conclusions more difficult. Thus, Study 2, an exploratory study, served as a first step toward investigating music-dance interactions. In addition, the analysis for this study was conducted by eye and ear only; in the future, an aim will be to use other technological data-gathering procedures such as motion capture.

As Richard Cameron-Wolfe commented to me, “‘art’ choreography is a fairly young phenomenon compared to the thousands of years in which music has evolved.”⁶² Hopefully, more dance scholars and music theorists will find

⁶⁰ Drawing a link between maleness and the analytical method on the one hand and femaleness and the intuitive method on the other is not intended.

⁶¹ For an example refer to Peter Martens’s work, e.g. his article “Glenn Gould’s ‘Constant Rhythmic Reference Point’: Communicating Pulse in Bach’s Goldberg Variations, 1955 and 1981,” *Music Theory Online* 13 no. 4 (December 2007), <http://www.mtosmt.org/issues/mto.07.13.4/mto.07.13.4.martens.html> (accessed March 24, 2012).

⁶² Wolfe, e-mail message, 2012.

interest in future to further explore how intuitive choreographers interpret music with movement.

Appendix A: Emile Jaques-Dalcroze (1865-1950)

As described in Stephanie Jordan's *Moving Music* (2000), Jaques-Dalcroze was a Swiss music pedagogue, who invented a method which incorporates music and movement, called *eurhythmics* or rhythmic gymnastics. He developed a list of structural correspondents, which can be seen below.

“Common elements between music and [the] `moving plastic`”

Pitch	position and direction of gesture in space
Intensity of sound	Muscular dynamics
Timbre	Diversity in corporal forms (the sexes)
Duration	Duration
Time	Time
Rhythm	Rhythm
Rests	Pauses
Melody	Continuous succession of isolated movements
Counterpoint	Opposition of movements
Chords	Arresting of associated gestures (or gestures in groups)
Phrasing	Phrasing
Construction (form)	Distribution of movement in space and time
Orchestration (<i>vide</i> timbre)	Opposition and combination of divers corporal forms (the sexes)

from: Emile Jaques-Dalcroze, *Rhythm, Music and Education*, trans. Harold F. Rubinstein (London: Chatto & Windus, 1921), 150.

Jaques-Dalcroze promoted the collaboration between music and dance, and he said that “the emotional impulse behind the music should find itself embodied again within the dance.” (Jordan, *Moving Music*, 28). Rhythmic exercises and counterpoint in dance are important points in his method, which influenced choreographers at the time.

Appendix B: List of Music Requirements in Undergraduate Dance Programs of Thirteen Randomly Chosen Universities in the U.S.

1.) **University of New Mexico**

<http://theatre.unm.edu/academics/courses.php#dance>

“Music for Dancers” is an optional elective.

2.) **Cornell University**

<http://theatrefilmdance.cornell.edu/academics/dance/dance-major-requirements.cfm>

Music classes count as electives, but none are required.

3.) **University of Iowa**

<http://dance.uiowa.edu/students/degree-checklists/>

“Music Fundamentals in Dance” is required.

4.) **University of Florida**

<http://www.arts.ufl.edu/downloads/programs/t/Advising%20Sheet%20-%20Dance.pdf>

“Introduction to Music Literature” is required.

5.) **University of Washington**

<http://depts.washington.edu/uwdance/FALL%202011%20schedule.pdf>

“Music for Dance” is an optional elective.

6.) **University of San Francisco**

<http://www.usfca.edu/artsci/pa/dance/#Major>

“Music for Dancers” is required.

7.) **Boston Conservatory**

http://bostonconservatory.reachlocal.com/?scid=1439658&kw=9212977&pub_cr_id=4725568389

Required classes include “Music Fundamentals for Dancers,” “Voice for Dancers (1 and 2),” and “Music Literature (1 and 2).”

8.) **University of Houston**

<http://www.theatre.uh.edu/ba/dance.asp>

No music classes are required.

9.) University of Kansas

<http://dance.ku.edu/programs/pdf/Checklist%20-%20BA.pdf>

“Rhythm and Structure of Music” is required.

10.) University of Texas at Austin

http://www.finearts.utexas.edu/tad/degree_programs/undergraduate/bfa_dance/4_yr_plan.cfm

“Introduction to Western Music” is required.

11.) University of San Diego

http://theatre.ucsd.edu/academics/undergraduate/dance_major/DanceMajor1112.pdf

No music classes are required.

12.) University of Maryland

<http://tdps.umd.edu/ba-danc-requirements>

No music classes are required.

13.) University of Nevada

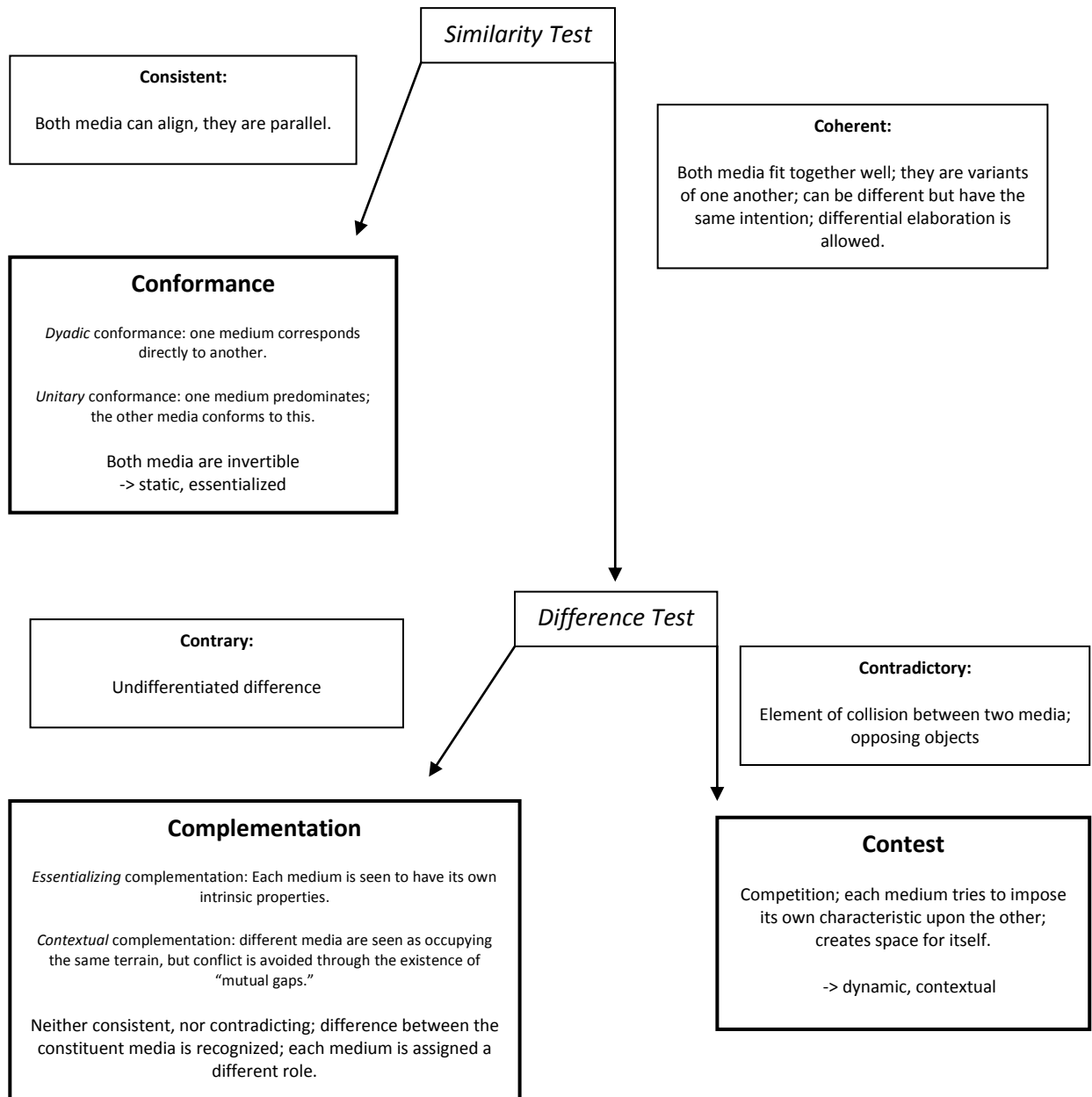
<http://dance.unlv.edu/bfadpc.html>

Two classes of “Music Theory for Dances [sic] (II and III)” are required.

Note: All websites were accessed on December 5, 2011.

Appendix C: Diagram and Definitions from Nicholas Cook
Analyzing Musical Multimedia (1998)

Chapter 3: Models of Multimedia - Three Basic Models (pp. 98-106)



Appendix D: Relevant Results from Eitan and Granot “How Music Moves: Musical Parameters and Listeners’ Images of Motion.” *Music Perception* 23.3 (2006): 221-247.

Zohar Eitan and Roni Y. Granot set out to investigate empirically “the ways listeners associate changes in musical parameters with physical space and bodily motion.” Participants in this experiment were asked to envisage an object which could move around in their imagination in response to musical stimuli. The following section describes relevant results.

Dynamics and pitch contour affect motion imagery the most: Dynamics are associated with distance and speed; this means that a *crescendo* is affiliated with higher and increasing energy as well as with approaching motion and an increase in velocity. A *diminuendo*, on the other hand, relates to an imagination of descending and moving-away motion. Dynamical changes keep their effects in fast or slow tempi. However, high level melodic patterns and likewise rhythmic patterns are more difficult to perceive in a slow tempo.

Pitch contour is related to verticality, which means that pitch rise evokes the imagination of an increasing distance as well as an increasing energy and velocity. When a pitch rises, the listener’s imagined object is moving away from the listener, and interestingly, moving to the right side. These results show how listeners map: they probably use “different mapping strategies” (Eitan and Granot, 2006). Pitch fall, on the other hand, relates to decreasing distance.

Musical timing (accelerando or ritardando, as well as motivic pace) refers to an image of speed: retardation is associated with a motion that slows down and moves away from the listener. An accelerando, however, is associated with higher and increasing energy. Interestingly, “both accelerando and ritardando were associated with descent” (Eitan and Granot, 2006) maybe because listeners use “conflicting strategies” to map music with motion. Melodic intervals affect motion imagery less.

The research reveals another important finding: “Listeners who associate a musical stimulus with a particular kinetic quality often *do not* associate the inverse stimulus with the opposite kinetic quality.” (Eitan and Granot, 238). This means that a diminuendo is associated with descend, but a crescendo, on the other hand, does not imply an ascend; crescendi speed up, while diminuendi (especially in faster tempi) do not slow down; “when pitch rises it moves faster (as well as further), but as it falls it does not slow down or draw nearer”; “pitch fall moves strongly to the left, while pitch rise is only weakly related to the motion right hand”.

Thus, results show that “musical space (...) is not composed of simple binary *oppositions* but of *differences*. Opposite ‘directions’ in this space do not present symmetrical contrasts.” (Eitan and Granot, 238).

Appendix E: Email to Choreographers

The following text was sent to approximately twenty choreographers, of whom fourteen responded.

“My name is Sabine Wilden. I am from Germany and currently a graduate student at the University of New Mexico majoring in Piano Performance and Music Theory & Composition. In addition, I have been taking dance classes throughout my studies.

In a project for my master's thesis, I am exploring the relationship between music and dance. More precisely, I am interested in how choreographers listen to and respond to music, and which features in the music lead them to choose particular movements. I hope to publish the results in a respected dance journal.

Would you be willing to participate in this project? If so you will be mailed a questionnaire with simple questions concerning how you choreograph and how you work with music. The questionnaire will be accompanied by a CD with four short musical tracks (45 seconds maximum). You will be asked to describe your responses to those as well as to more general questions. This survey will take under an hour to complete.

Please let me know if you would be willing to participate in my study. Your help will be greatly appreciated!”

Appendix F: Blank Questionnaire

**Questionnaire for Choreographers on the Relationship between
Music and Dance**

for a Master's Thesis by Sabine Wilden

University of New Mexico - Music Department

First, please provide some general information about you:

Female / Male (please circle)

Age: _____

For how long have you been choreographing? _____

Dance Genre you work/dance/choreograph in: _____

Have you ever played a musical instrument? No / Yes

If yes, which one: _____

How many years of study? _____

Have you ever taken a class in music theory? No / Yes

If yes, for how long? _____

What was the content of the class?

Questions

Part 1

- 1.) If you want to choreograph a new piece, how do you choose your music?
- 2.) Have you ever collaborated with a composer?
If yes, please describe the collaboration process.
- 3.) What comes first in your creative process, the music or the movement?
This means: Do you begin choreographing phrases and then look for music that fits them? Or does a musical piece inspire you to create movement to it?
- 4.) How would you describe the relationship you see between music and your choreography?
- 5.) How important is the music for you?
- 6.) How would you place yourself on the following continuum:

Balanchine/Stravinsky-----Cunningham/Cage

(The choreography must express or represent the music.)

(The music and the dance should be independent.)

Why?

- 7.) Which factors in musical sound and structure influence you the most?
(E.g. Rhythm, Pulse, Form, Structure, Melody, Mood, Timbre, Motives, Themes,...)
- 8.) Have you ever had the chance to work with musicians and have them perform live on stage with dancers?
If so, how does live music influence the interpretation of your choreography?

What sorts of interactions do you see between musicians and dancers?

Part 2

Now please listen to the four short excerpts of music included in this survey package, taken from Maurice Ravel's String Quartet, second movement.

What jumps out at you in terms of how you would choreograph to this?

What about the music stands out, and what sort of movement possibilities/imperatives does it suggest?

Appendix G: Ravel, String Quartet, II, Excerpts 1 through 4

Excerpt 1 (mm. 1-12):

11

Assez vif - Très rythmé (♩. = 92)

The musical score is presented in three systems. The first system contains the first three staves of the quartet. The top staff (Violin I) begins with a *pizz.* marking and a dynamic of *f*. The second staff (Violin II) also starts with *pizz.* and *f*. The third staff (Viola) begins with *pizz.* and *f*. The bottom staff (Cello/Double Bass) has a *pizz.* marking and a dynamic of *f*. The second system continues with the same four staves. The top staff has a *pp* dynamic and a trill. The second staff has a *mp* dynamic. The third staff has a *mp* dynamic. The bottom staff has a *mp* dynamic. The third system shows the first two staves. The top staff has a *ff* dynamic and a trill. The second staff has a *ff* dynamic.

Excerpt 2 (mm. 13-29):

The red arrows mark the repeating themes.

Circled in yellow, you see the b-theme, circled in blue the a-theme.

Excerpt 3 (mm. 26-29):

Musical score for Excerpt 3 (mm. 26-29). The score is in G major and 3/4 time. It features four staves: Violin I, Violin II, Viola, and Cello/Double Bass. The first two staves have a *mf* dynamic, while the last two have a *f* dynamic. The music consists of eighth-note patterns with triplets and accents. A *arco?* marking is present above the Violin II staff. The excerpt ends with a first ending bracket.

Excerpt 4 (mm. 88-98):

H Lent (♩ = 46)

Musical score for Excerpt 4 (mm. 88-98). The score is in G major and 3/4 time. It features four staves: Violin I, Violin II, Viola, and Cello/Double Bass. The tempo is marked **H Lent** with a quarter note equal to 46 beats per minute. The music is characterized by long, expressive notes and triplets. Dynamics include *mf*, *pp*, and *arco*. A *portato* marking is present above the Cello/Double Bass staff. The instruction *mettez la Sourd.* is written below the first staff.

mettez la Sourd. très expressif

cédez a Tempo

Musical score for Excerpt 4 (mm. 88-98) continuation. The score is in G major and 3/4 time. It features four staves: Violin I, Violin II, Viola, and Cello/Double Bass. The tempo is marked **cédez a Tempo**. The music consists of eighth-note patterns with triplets and accents. Dynamics include *p*, *mf*, and *pp*. The instruction *très expressif* is written below the Cello/Double Bass staff.

Appendix H: Completed Questionnaires (Results)

Choreographers on the Relationship between Music and Dance

Many thanks to the following choreographers for participating in the survey:

Jennifer Boren, Vladimir Conde-Reche, Patricia Dickinson, Jacqueline Garcia, Rachel Germond, Georg Hobmeier, Donna Jewell, Zoe Knights, Martina Morasso, Jennifer Predock-Linnell, Mary Anne Santos Newhall, Jim Self, Byron Suber, and Rahel Weißmann.

City/Country: Görlitz, Germany; Köln, Germany; Salzburg, Austria; Norfolk, VA, USA; Ithaca, NY, USA; Albuquerque, NM, USA; Brazil.

Handwritten answers, returned via mail: 8. The typed out answers are based on a best approximation of respondents' intended meanings.

Electronically submitted answers: 6

Remark: Everything written in italics is a translation from German to English done by Sabine Wilden.

First, please provide some general information about you:

Female: 10

Male: 4

Age: 33; 34; 36; 37; 41; 47; 48; 49; over 50; 53; 56; 57; 70; (? not specified)

Average Age: ca. 47 years

For how long have you been choreographing?

15; 41; 25; 40; 19; 50; 10; 34; 10 years; life-long. Professionally for 18 years; informally-since childhood, show choir since age 13/14, musicals (age 16-18) only, modern dance (since age 19); since I was a child, formally, since about 1990 or so – over 20 years; since 1988 – so 24 years; 36 years.

Average Years of Choreographing: ca. 26 years

Dance Genre you work/dance/choreograph in:

“Tanztheater” (*Dance Theatre*), Modern, Postmodern, Improvisation, Performance, Pop Dance Forms, classical and theatrical forms, Contemporary Dance, Jazz, Modern/Interdisciplinary – movement, video, sound; contemporary performance art with elements of media, choreography, theatre and dance; ballet/modern, Modern and Jazz, Ballet & Modern/Postmodern/Contemporary; ballet; Contemporary (Modern) and Jazz/Burlesque; ballet, contemporary, film, commercials, musicals.

Have you ever played a musical instrument?

Yes: 10 No: 4

If yes, which one: recorder, piano, (acoustic) guitar, flute, accordion, concertina, clarinet, oboe, tuba, singing, clarinet, castanets, viola

How many years of study? 2; 2-3; 3; 3; 4; 4; 5; 5; 6; 8; 10 years

Average years of instrument studies: ca. 4.7 years

Have you ever taken a class in music theory?

Yes: 9

No: 3

sort of

No, but I worked a lot with composers and learned a few things from them.

If yes, for how long?

4 semesters, 4 months, 1 semester many years ago, 1 year at the Julliard School of Music, 1 semester; 1 year; I have a minor in musicology.

On 4 different occasions: I cannot remember the duration, it was usually part of another course of study i.e. dance/performing arts studies. I would say one time per week over 6 months. I also studied it as a child.

Average duration: ca. 8 months

What was the content of the class?

General Music Theory for Ballet and Choreography, Music Appreciation 101, contemporary composers, rhythm, modes, history of western music, scales on piano, bead game theory, analyzing a piece of classical music bar by bar, how to read music notation and to interpret it, how to sight read and sing, how to read rhythm etc.; analysis & structure of music with movement; at a piano competition, along with theory I got from my regular teacher - it was not a class, but rather testing on such things as key signatures, time signature, etc.

Class Name: Music for Dancers

Historical, systematical and ethnological musicology - furthermore counterpoint, the study of harmony and form, notation, etc.

Questions:

PART 1

1.) If you want to choreograph a new piece, how do you choose your music?

(MM) Normally I am looking for

- Music in strong contrast with what/how I am moving, but with an associative (not necessarily logical / mathematical) connection. For example a “Fado”-song when I express dramatic sadness or an “ostinato” when I dance like a flow;

- Music with a “fitting” structure to my choreography. The structure should offer a support to my moving or define the phrases of the choreography. Lately, I danced my own piece “Mutter ach Mutter” with music by Gustav Mahler: I have structured the phrases of the piece in relation to the phrases and refrains of the Lied.

Actually, first I think/imagine, afterwards I move in silence, third I work with the music, fourth I modify/model the choreography in relation to the needs of the music.

(MSN) It is different every time – sometimes music moves me so deeply I must respond with movement. I hear music and “see”/feel movement.

(DJ) Most times I choose to choreograph to music; the music itself is the first choice in the entire creative process. I would hear it on the radio or someone would recommend I listen to it, and a dance unfolds before my eyes.

Other times, I have an image and concept, and a musical piece I have heard emerges in my memory and tells me that it is the right piece of music. Sometimes I feel a certain genre of music fits the concept of the dance.

(JS) There is no one set way – often something pre-recorded added later – mostly start with movement/concept

Sometimes use live improvised music or develop it with musician

- Often dance in silence or work with sound effects

(RW) *This depends on different factors:*

- *The “origin-theme”, the first choreographic idea is of utmost importance in deciding which music is appropriate.*
 - *The place of performance (e.g. stage, open air, museum): you have to take ambiance and acoustics into consideration. This is also important for the choice of instruments.*
 - *How many dancers are performing (Solo/Ensemble accordingly to Solo-instrument or chamber music or orchestra (where appropriate))?*
 - *Is live music or the collaboration with musicians possible for a project, or is a CD recording better for the origin-theme?*
-

(JPL) Generally I don't [choose the music] unless I want [the choreography] to be rhythmically driven. Usually I create the dance first, have the composer come to rehearsals, ask questions, watch the movement and we go from there. Then it becomes like a tennis match.

(GH) I mostly work with composers. Otherwise I use music according to “what the piece needs.” This might be either something atmospheric or, quite often in my case, a quotation from popular culture or a combination of both.

(BS) Usually, I run across it on the radio, and then listen to it a few times. There is no particular style I prefer, but I do like cello, string quartets, minimalism, complicated piano work and some pop music.

(ZK) It depends. Often I am inspired before and during my process by a piece of music. It is usually however not the music I use in the final piece as it often is then too one-dimensional. I find using the sound-scape as a counterpoint or juxtaposition to the choreography usually strengthens the meaning of my work. Depending on the content of the piece I often use music to create a specific atmosphere. The music is often very functional in that I require beats and cues for the dancers to execute their movements. I often work with a composer who will create the cues I require, and an atmospheric sound-scape to build tension throughout work which is generally repetitive and hypnotic.

(JG) Generally, I start with an idea for a particular sound or need in the music. I spend several hours researching music online and try to find different samples of music that seem to resonate with this particular mood or tonality. Then, I allow the music to play on a loop in the background while I am working at my desk and when I am working in the studio. The “right” piece of music seems to reveal itself after allowing it to play in the background for several hours.

(VCR) Every time is different. Sometimes I look for a composer relating to the time [period] he was composing, for instance, if I want to create a work that deals with a medieval theme I will look for composers in that period of time, I listen to some samples of different works and finally look for a work that can carry the feeling of the piece I will create.

Sometimes I am listening to music and feel the drive to choreograph to that one that was just playing; it has to do with what the music inspires me to.

Sometimes I want to hear the silence and music that complements the silence.

I use my memory to connect to feelings, emotions and situations and [then connect] to which “soundtrack” was playing when those moments happened.

(RG) Before I choreograph the dance I usually have several pieces of music that I am interested in waiting to be used... Whatever idea comes to me when I start working in the studio with movement, I usually then coordinate it with some kind of sound score. Usually my dances are comprised of small sections which each have their own music and sometimes have text or sound effects as accompaniment instead of music. In effect, I create a musical score for the piece much like a film has a musical score.

(JB) One of the hardest things is actually finding the music – in recent years I-Tunes has been helpful, along with YouTube and other sources on the internet. Sometimes I come across a composer from going to a concert or seeing another choreographer use this composer or simply hearing something on the radio or on film or Pandora.

This is a loaded question – it depends on what group of dancers I have – I am very careful to choose the piece of music that best suits that certain class’s

group's skill level. Are you talking about a concert piece and professional dancers? That's going to be a more mature piece of music with more intricate timing possibly (varied key signatures).

Choreographing for children is much different. The piece needs to be age appropriate, interesting to their ear, and with simple and obvious beat they can hear and follow.

Mostly I am restricted to what the director wants or what type of show it is, or what level of dancer or how many numbers of dancers I have.

If no restrictions, then simply it could be what mood I am in – maybe I want to do something fun and upbeat – or something very contemporary for the dancers. It mostly has to do with who you have to work with. If I have a boy, then it is going to be a completely different kind of piece that utilizes/features him and not a piece just for girls where he would be lost in the masses. The male dancer and how he is utilized is very important.

(PD) The music kind of finds me. I will listen until I find a piece that “speaks” to me. For example, for DRACULA, I listened to 130 CD's. I had the story (my version) mapped out, and then I kept searching for music, including Gregorian chants, 4 versions of Barber's Allegro for Strings, etc.

2.) Have you ever collaborated with a composer?

No: 2

Yes: 12

If yes, please describe the collaboration process:

(MM) I worked with a computer music composer (his name is Constantin Popp) at the University of Weimar for a production of *Pèlerinages* in the same city. We developed the music together. At the very beginning I explained him which kind of and how many scenes I had in mind. The composer modeled the different tracks for me with an unspecified length. I used the music in rehearsals and I described him what was immediately fine, what was not working, what could become better in relation to the needs of the scene and of the dancers. Music and choreography were growing in any case side by side.

(JS)

- every conceivable method I've done
 - live improvised
 - music composed to dance
 - dance composed to the music
 - music and dance created together
 - music and dance created separately
-

(DJ) Yes. I have collaborated. I wanted to create a dance to someone else's concept. A composer approached me and told me his concept and what he believed the music portrayed. I created a dance based on the atmosphere of the music and on the concept of the composer. I felt it was quite successful.

(MSN) We were reconstructing a historic work – Mary Wigman's "Hexentanz" (1926).

We used her work in methodology.

(RW) I have collaborated with composers and musicians several times; this is why the experiences and ways of working have been very different. The collaboration depends a lot on the musician's openness for the needs of the dance/the dancer (e.g. with regard to appropriate tempi). It, thus, depends on whether a musician works with dance for the first time, or if she/he has already gathered experiences in this field.

The most effective collaboration (so far) started out with an introduction of the work the other one had done hitherto, in order to get to know style, work, and preferences of the other one. This was linked to an exchange of goals and expectation/wishes for the future mutual work.

Then came the (still theoretical) first concrete plans for the mutual project. After the content had been roughly defined, a development of a clear outlined dramaturgical overall-structure followed.

Then the practical phase began (very exciting, but also very exhausting): improvisations on the different episodes of the dramaturgic; suggestions by the choreographer, which movements she would like to choose here; improvisations on those movements by the musician. Or: the composer suggested something first and described which movement he would like here from the dance. It was difficult/challenging for our work not to get lost in discussions, but that it would rather stay open, so that many reciprocal suggestions could be tried, and "played through," if possible. Also to engage in something which oneself would have done differently. The composer especially had problems with this, since he liked to plan everything "mentally and thought-through", I however, advocated for trying-out, in order to learn about the practical working-process; if something feels good and coherent, and if and how it could work in practical experience.

(JPL) Yes, most times. See above.

(Usually I create the dance first, have the composer come to rehearsals, ask questions, watch the movement and we go from there. Then it becomes like a tennis match.)

(GH) I worked extensively with various composers, mostly developing not just my own work and then adding their music, but finding new forms that allowed and demanded an interpenetration between the different forms, ultimately leading to new ways of stage work. However, I stopped doing that, for this often leads to the unfortunate combination of two spirits wanting to create one thing with two minds.

(BS) Yes – we just talked about ideas, they would produce music and I would respond to parts that did not work for me and then I would receive a new model.

(ZK) Yes. My first experience of collaborating with a composer was in fact not a collaboration. I found a piece of music written by a local composer and met with him for permission to use his work. The music was added after the completion of the work and fitted it perfectly. It was one of my most successful works, created whilst I was still a dance student. However it fitted my methods of using music to create a particular environment or atmosphere.

I collaborated properly for the first time with a composer in 2004. In 2003 I participated as a singing student in a week-long jazz workshop headed by world class musicians, and it was there that I was introduced to a highly talented double bass player. He is a jazz and contemporary composer, and we had a few

sessions of improvisation with him playing and me dancing. It worked very well and at the end of the course we performed a low-key improvisation for the group. When I decided to make a solo work the following year, I invited him to perform in what became a duet where he also danced. It was a rather short rehearsal process due to scheduling and budget restraints, over about 3 weeks. The piece started with a 10-minute excerpt of a previous solo work which I was interested to further investigate. We basically created the work by improvising together. In the work he played and moved both on the ground and hanging with his double base in the air. It was altogether choreographically based on our enthusiasm to discover something new and our appreciation for each other's skills.

Following that experience I have consistently worked with musicians/composers to create the sound scores for my work. It has been a slow development where I have become more and more involved in the creation of the score itself.

In my subsequent choreographic work I was deeply involved in discovering a particular style of movement and asked someone to make a sound-scape for the final piece. It included the dancers creating their own soundtrack from the movement, and a small section in which they required metronome beats to keep tempo. In the second phase of this work I invited a group of local beat-boxers to take over the sound-score for the last 20 minutes of the work.

In 2007 I had my first opportunity to work for a longer and more intense period with a composer whilst in residency to make a commissioned work in Belgium. It was a much more rewarding process to have a constant dialogue with the composer who was present regularly from the beginning of the 7 week process. In the end he had relatively little freedom as the sound-score was once again necessary for the dancers to keep count. Their choreographic score was highly complex and required a high degree of concentration. I needed a sound for them which could be relied upon by them and yet pleasing to the ear for the public. I asked the composer to make beats, slowly accelerating throughout the piece and

eventually culminating in a fade-in to Beethoven's 9th Symphony. Underneath the whole score Pol (Pol Isaac the composer) created an atmospheric sound score which would still enable the performers to follow the counts. It was a highly successful work and the beats in fact helped to create a very hypnotic effect and drew the piece together. Pol would give me samples of previous music he had created in order to get an idea of which direction I would like to go, but eventually I had to pare it down to something much more minimal. I think for him also it was a new understanding of the subtleties in accompanying dance.

(JG) I worked on a piece titled, "Hit!" with musician/composer Stuart Smith. The piece called for a drummer playing a full drum kit live on stage with four dancers. I developed the "score" in terms of the meters and the change of time signatures during the piece, which was incredibly complex. Stuart then filled out the meter rhythmically and gave it the full sense of musicality and tone.

(VCR)

In two different occasions and two completely different processes:

- There was a specific work from J.S. Bach that I wanted to work with, because it was from that period of time. I wanted to play with the juxtaposition of the score [first] played on the cello and then [being] repeated on electric guitar. The composer took the idea and composed a middle section that would link both. It was a great experience finding his take on it.
- I had a series of sections that would deal with specific emotions/tempi and texture qualities and talked to a composer on how it could work to a musical score. We talked and figured out a way that it would culminate in a score that could be listened and danced to.

Even though we agreed on some tempi and time limits for each section, he [kept changing the length] of each section, [and thus changed our previous agreements.]

In this specific collaboration the expectations became unclear to the composer. It ended that he wanted his idea to be the main idea and not part of a layered performance. The work was to be part of my Thesis project for Graduate School, [but] he saw it as his music performance. The relationship turned very tense to a point that I almost changed his original composition to one specific score by Elgar.

Expectations and Egos, that has always to be clear.

(RG) Yes, several times. It has not been a successful endeavor for me because of how I work with music in my dances (as stated above). One time I worked with a composer who wanted to look at a video of the completed dance and then compose music to it, much like the idea of putting music to a silent film. This was not successful because I really disliked how the music completely changed the interpretation of the dance. A good collaboration was with a singer & composer who created music from text that I gave him to work with – a poem by Christina Rossetti - so that we were on the same page as far as the structure of the music was concerned. He also created music for another dance from a poem by Eugenio Montale - I had the singer onstage with us during the performance, it was wonderful. (The singer also happened to be my sister who is a classical music singer).

3.) What comes first in your creative process, the music or the movement?

This means: Do you begin choreographing phrases and then look for music that fits them? Or does a musical piece inspire you to create movement to it?

(MM) Normally I start with the movement. Before moving I am looking for texts as a structure. A lot of times I choreograph even [in response to] the single words of the text. The text is a wonderful inspiration for me: at the same time is often the structure itself. E.g. in “Mutter ach Mutter” I first choreographed the words of the *Lied*, and afterwards I “expanded” the choreography through the musical phrases by Mahler and the grammatical phrases of the romantic *Lied*. You must also consider that I “think” too much. I am a Doctor in Humanities. This always influences my choreographing...

(MSN) Again it is different depending on the dance.

(JS) Both, all and any combination of it.

(DJ) When I was younger, between ages of 24-30, music was almost always the generator of the creative process for me in making dances.

Now, I often have the concept first and then search for the music.

However, recently I was approached by a man who wanted to commission me to choreograph to Mozart’s Requiem. Difficult and wonderful music. I decided to use only the first two movements. And then I listened to those, over and over, every other day, for at least a month. Structure and movement quality for the dance

emerged from my listening sessions. I did not look at sheet music because I wanted to respond viscerally [?] to the overall structure and tonality of the music.

(RW) I usually start with movement when working on a choreographic idea. Which movements, which “pictures” do I want to use, in order to realize my ideas? I, thus, start with the improvisational formulation of movement.

If a rough direction starts to evolve with regard to which character the movement will have, I then test which music is appropriate. From this moment on, the inspiration through the music plays a role. When testing a musical piece (to which I can come up with a lot of movement which fits to my origin-idea) I then work with this music (according to the theme), and improvise. However, I also still listen to other musical pieces in order to keep the movement relatively independent from the chosen music.

Only if I have collected a lot of movement material, I arrange the discrete parts to the chosen music. This means, that I do not work on whole phrases, which would then not fit to the music in this particular form and which I would have to re-arrange totally. I, thus, collect fragments of material first, which I can directly arrange with the music.

(JPL) I work both ways – if I am inspired by a piece of music, I begin to choreograph after listening to it many hours. It can be a piece that is rhythmically driven or so abstract, that it creates an atmosphere of sound that I can draw from but not necessarily adhere to.

(GH) Neither. I always start my work with concepts and scenarios. I then pile everything on top of them, from movement material to random video footage to

books to films etc. With this cluster I then start to rehearse and then somehow everything evolves according to “what the piece needs”. Music has sometimes inspired me to make pieces, but truth told, I never made those pieces. They remained vague incomplete visions.

(BS) I work in both ways depending on what kind of work I am doing – sometimes I change the music to see what new relationships form.

(ZK) Both. It depends on the project. In any case, the music that is part of the creation process is usually never in the final work. The music may inspire images, which in turn inspire scenes or movement. Music may initiate the use of a certain style of movement, or choreographic phrases may lead me towards a certain style. During the process I may use different pieces of music to accompany the same movement in order to get a feel for what I [want] to create in terms of subject matter and final performance. Often the sound-score is inspired by and required by the choreographic score.

(JG) Generally, I start the choreographic process with a concept for a theme or intention for the piece. At this point I begin researching music.

I may have general movement concepts in mind or maybe even a few phrases. But, I almost always choreograph with the music in mind and with the intention of highlighting the musical score. In some cases, I have choreographed phrases without the music. But, I am not a fan of simply dancing OVER the music with no regard for it at all.

(VCR) Question 1 answers this.

(RG) Sometimes the former, sometimes the latter.

(JB) The music is always my inspiration. It tells me what to do. People that choreograph phrases and then force them to fit any music really drive me crazy! It's as if they have no respect for the music.

(PD) Most times, music comes first. But you have to have an overall view of how you want a work to look before you begin (i.e. classical, contemporary, jazzy, maybe a story). So really it can go both ways.

4.) How would you describe the relationship you see between music and your choreography?

(MM) This was a "difficult" subject during my university-studies (Bachelor of Arts, [Theatre-sciences] University of Genova, Italy). What can I say? Of course all the three possibilities are fine: music inspires moving; dance models the music; music and movement go hand in hand. I suppose it depends on the context, the situation and the goal.

In the case of "Mutter, ach Mutter" I looked for a music, fitting with the meaning of the choreography.

In the case of Weimar the [collaboration] with the composer was the only way to develop a smart artistic product.

(DJ) Sometimes my choreography is music driven. Sometimes it is concept driven. BUT, if it is music driven then I tend to serve the music, to make sure the choreography does justice to, and relates deeply to, the music.

(MSN) Integral

(JS) Multiple relationships – I work with, against, in and out of the music – There is no formula or regular way – I enjoy trying new relationships

(RW) In my pieces, I see dance and music as two independent art-partners, which let a new, a third element arise when [the two forms] converge in front of an audience. There are passages of close mutual dependence, but also those of letting-go and individual freedom. This establishes more freedom for the audience for their own interpretation of the piece; and the relationship between music and dance often gains an interesting tension, which adds to the vibrancy of a piece.

(JPL) That is a big and messy [?] question. It depends upon your intent with the choreography and if the music is a parallel partner or the music is the first and you adhere to the score or – you choreograph first and then invite the composer in to create a score that supports and embellishes your creative idea.

(GH) Again, my work is so diverse that it's almost impossible to answer this question. I did pieces where the music was literally re vibrating in my body by the means of electro muscular stimulation. I made audio walks where the music wraps people into a particular atmosphere. And then I made choreographies and wrote lyrics for a singer, where the relationship was very direct and personal at the same time.

(BS) I have been told that I am very musical. I often listen to a piece several times and go on with a vague idea and play a bit and make something to fit it and continue bit by bit with spontaneous response.

(ZK) Music has a very profound relationship to the work I create. Whether it [is] the impulse for movement, or for images which inspire me, or even if it arrives right at the end of a process it plays a vital role in the work I create. Both absence and presence of sound adds a great deal of theatricality to my work and is one of the most fundamental elements of my work. It is another level on which I can communicate with an audience and convey the themes of my work. This is also the case whether the music supports the movement or counteracts it. I find music targets something deep within the human on a subconscious level which defies logical thought. I can only comment personally that music has the ability to attract and repel and both are wonderful sensations that lead us towards discovery. It has a multitude of timbres, shades, etc and can reach to the furthest corners of who we are. From the work I have done I am fascinated in the basic structure of the manifest and the links between mathematics and music, as structure based on rhythm and pulses and energy. I find it is this which makes dance and music such powerful and universal tools of communication. And in this is wonderful transformative potential. I know that music and sound have the ability to lock in, like a magnet to something close to my heart; possibly to the beat of my heart.

Perhaps for others this is also true. Music has been a constant part of my life. As a child the predominant household music was classical music and I see myself constantly coming back to this. I was exposed to musical theatre and opera at a young age as well as a childhood of ballet and tap dancing training in which classical music played a big role. Perhaps it is also this feeling of nostalgia which plays a big role in my choices.

(JG) Both the music and the development of the movement vocabulary itself tend to influence the final choreographic product. The music is definitely an inspiration for me and helps to drive my movement invention.

(VCR) To me, there is always music. The silence is music for me. I believe that choreographer, dancer, movement, music, costume, light, the performance space, all of them are layers that can and should be able to stand on [their] own. The shape, the architecture of the choreographic work is what the combination of these layers creates. The world around us is like a choreographed work that changes daily according to the placement of each layer.

(RG) Very particular. I love music but I feel I have to be very careful how I use it in my work. Sometimes I enjoy using popular tunes that have a history to them, which the audience then responds to along with the dance they are seeing. For example I have used songs sung by Judy Garland and Elvis Presley - also a famous piece of classical music like from the Carnival of the Animals - I like to play on the fact that the music probably already has a place in some of the audience's musical memory experience. Sometimes I like to use very experimental composers - like Michael Zerang, or John Zorn - music that is raw and expressive - or electronic like TV POW - music that I feel is more in line with

the “style” or “taste” of my own work, and sometimes I like to play against the avant-garde nature of my work by using Pop tunes.

(JB) It is my hope that when people see my choreography they are “seeing” the music the way I see it. I enjoy utilizing accents – big and small – I also like to use the undertones or counterpoint, one instrument playing off another – also the crescendos and decrescendos.

(PD) Although I am not a musician, I am very musical. The choreography must compliment the music (for me) and emphasize the changes in the music.

5.) How important is the music for you?

(MM) Music is important, if it’s a strong partner of my moving. I hate to use music just as [*decoration*]. If I do not find a proper music, I prefer to move in silence.

(JS) depends on the work, but generally I use music as a major component of the piece – it often illustrates or propels the work

(MSN) Very.

(DJ) Even silence during a dance is a musical choice. Sound score, and music, are vitally important to my dance making. Without the right music, things fall apart.

(RW) Even when I am not aligning my choreography “slavishly” with the music (in the sense of “dancing the music”), the music is essential for me. Sometimes, there are also passages or moments free of music, however, those are clearly chosen and eventually emphasize the anew entrance of the music. Music for me is the impulsive force, both when I am distancing myself from it, and when I adjust to it.

(JPL) Very! But it depends upon the situation in the choreographic process.

(GH) I'm not too sentimental about it, but I listen to it quite often. But I think sound and acoustics in general play a big part in my work. I would not limit it to the term music.

(BS) Very, but I do work with silence and I sometimes work with vocalized text.

(ZK) I believe I have answered this in the last question. I can only add that I spend hours and hours and hours in my rehearsal process, usually outside the studio time with the dancers, just sitting in the studio or my room listening to music which inspires and moves me. The time of day also plays a big role in how I respond to music. Often working late at night on the edge of tiredness will trigger new responses and inspiration, but I find that the key is length of time with

music. I need to hear the sound over and over and to immerse myself in its world to trigger new ideas or understandings of what I am creating. It is very often classical music, and will usually not be in the final work. Just concentrating on this sound and the shifts in tempo, dynamic, color, spirit, rhythm (etc.) helps me to crystallize the essential elements of my work and often helps me to solve complex mathematical problems present in the choreography. It helps me to pare down which dance phrases are essential and which work together to create a desired rhythm of image. Much of my choreography is based on creating image through rhythmical shifts in movement, and even if this music has nothing to do with the rhythm it helps me to do as aforementioned.

In the final performance I use sound/music alongside movement, set, and costume to create a unified and strengthened theatrical experience for the audience. I enjoy creating an environment for the viewing public which can take them to another realm, one which they most probably will not experience outside on the street in the same manner. In my last work “and 10 times more” which was based on abstracted soccer players’ movements and in which the sound person magnified and played with the sounds of the dancers themselves, the greatest feedback I received from the audience was that they will never view soccer in quite the same way again. I used the dancers’ sound and the choreography to highlight movements of great beauty that we see in everyday life, but which are obscured by our focus on the game and the context of group sport. The live sound in that work helped to transport the movement to a realm beyond the literal.

(JG) Often times, I will try a few choreographic phrases to different pieces of music. The piece does not really seem to take off or gain momentum until the final piece of music has been selected. In this sense, the music is essential.

(VCR) As important as any other component/layer. It can drive or hold the work if the ideas are not coordinated, assembled in a way that will carry a specific idea.

(RG) Very important. I love music. I can't imagine my life without it, although of course I love dancing best of all.

(JB) It is extremely important. I think it is disturbing to the audience if the movement is not musical; I know I would not want to watch it. It should also be noted that if the piece is to be included in a concert whose purpose is to generate an audience and ticket sales, then this has to be taken into consideration.

Is the piece being done for selfish purposes only? If so, then it is okay to push the envelope and be off the wall, more than normal. But if it is necessary to present a concert of work in which you want an audience to keep returning, you cannot throw caution to the wind or your company will go broke. I was just speaking to an artistic director about this. A presenter will not bring you in.

(PD) I will use silence as a choreographic tool sometimes WITHIN a ballet, but I honestly do not believe I could ever work an entire piece without music.

6.) How would you place yourself on the following continuum: Why?

Balanchine/Stravinsky-----Cunningham/Cage

(The choreography must express
or represent the music.)

(The music and the dance should be
independent.)

(MM) Surely on the Cunningham/Cage side. I believe in the creative independence of music and dance. If a “struggle” follows, the result is mostly very interesting.

(DJ) I am not on this scale because I have done, and continue to do, both. The Balanchine/Stravinsky end sometimes serves the concept, the other end serves at other times.

(MSN) I respect both ways of working.

(JS)

I have one of all these points on the continuum at some point.

I tend to work somewhere in the center most often.

(RW) I would rather place myself on the Cunningham/Cage end. First, I work a lot with improvisation, both in the development process and in solo performances. The drafting of the movement material occurs largely independently from the

music (with me) and initially has artistic priority. In a second step, I work closely with the music, whereat the dance is not making the music visible (as Balanchine does), however, the dance and the music suggest a connection, in which the dance is not losing its independence, but still produces a relation to the music. Respectively, when the audience perceives it, a relationship between music and dance will be created.

(JPL) I do both because I like the challenge of the artists you present. Neither are simple in content and both present fascinating challenges to a choreographer. This is not to put the movement into a ballet or modern environment. Both are contemporary but very different structurally. I have leaned towards both.

(GH)

Balanchine/Stravinsky-X-----X-----X-Cunningham/Cage

Why?

It really depends on the work. I hate to repeat myself: but I follow “what the piece needs.”

(BS) places himself in the middle

It can but does not have to. Both processes produce interesting results.

(ZK) I would say more towards the Cunningham/Cage end although possibly somewhere in between. The movement is separate from the sound but the sound is intentionally created to add something to the performance atmosphere. It does

not occur merely from chance encounter as in the case of Cage. I would say it is the reverse of Balanchine/Stravinsky and similar to Cage/Cunningham in that the two exist alone but support one another. This is a good question...

(JG) places herself slightly towards Balanchine/Stravinsky

The choreography must always be strong enough to stand on its own in silence. However, if the choreographer makes the artistic choice to use music, then it is my preference to see the music acknowledged in the choreography. There must be an interplay between the two components. I don't see the music as filler or background accompaniment. This being said, however, the sole purpose of choreography is not only to express music. There must be choreographic intent as well.

(VCR)

Balanchine/Stravinsky -----**ME**-----Cunningham/Cage

Why?

As I said earlier the layers should be able to stand on their own; if they are placed together, one will complement the other. Even in the situations where the choreographer's idea is to go against a tempo or "feeling/mood" that the music gives, it should be a conscientious choice where they work together to express the meaning/idea/concept of the work created.

The combination of the layers will give birth to a living form that will be different every time that [it] is performed, because we can't forget the element of the live performer.

(RG) Balanchine/Stravinsky-----**BOTH**-----Cunningham/Cage

Why?

For reasons stated above, I think I can work very closely with the music and express choreography that is very musical, but I also enjoy using music as an atmosphere for a dance to unfold in rather than something that propels the movement, the music is just there along side of it, or rather creating a texture or environment for the dance to take place in. I think the same dance can have BOTH of these relationships to music within it.

(JB)

Balanchine/Stravinsky----X-----Cunningham/Cage

Why?

Sometimes the Cunningham/Cage aspect can be effective, but not for a long period of time, in my opinion. Pulse and rhythm are very primitive and somewhat necessary to an audience, visually, emotionally, spiritually and physically - also to a dancer these things are important.

(PD) I have worked with both sometimes in my career (danced Balanchine, choreographed to Stravinsky, worked with Cunningham/Cage in Dallas 1979, I believe). I must say I am closer to the choreography expressing the [music]; however, the movement must be equally powerful as to not be overshadowed by the music. I would say they should complement each other.

7.) Which factors in musical sound and structure influence you the most?

(E.g. Rhythm, Pulse, Form, Structure, Melody, Mood, Timbre, Motives, Themes ...)

Remark: I forgot to mention dynamics, and articulation, maybe this is why nobody mentions those aspects.

(MM) Structure and Mood

(MSN) Rhythm and Structure

(DJ) Rhythm, Melody, Tonality/Timbre, Form and Mood

(JS) All of the above

(RW) Spontaneously, I always react first and foremost to the rhythm in a very elementary way. I like to use music, in which melody lines partly superimpose the rhythm; thus, I can walk along the music in my own dancing way, where I can commit myself more to the rhythm or more to the melody. This permits relative independence of the choreography in relation to the music.

(JPL) All do based on my immediate aesthetic and what I want to express choreographically.

(GH) Rhythm and Mood

(BS) melody, structure, mood, form

(ZK) I have mentioned this in a previous answer. Definitely rhythm and pulse, mood and timbre and dynamics. Although, as I work from an instinctive feeling very often, it is hard to separate the elements.

(JG)

1. Mood/Timbre
 2. I am definitely affected by certain types of instruments more than others. I love the cello, for example.
 3. I tend to be influenced by the drum and bass lines quite a bit (rhythm/pulse)
-

(VCR) None of it and all of it. It depends on what I want to say.

(RG) Rhythm and Mood

(JB) All of these factors influence me. If it had no melody, I would not be drawn to it. If the rhythm were interesting and spoke to me, that would sway me. If the pulse were too slow or monotonous, that would be a turnoff. A recurring theme that was moving and intoxicating would be a turn-on. Too dark of a mood a turnoff.

(PD) In classical music, you always come back to the theme without being

repetitive. In music, say by Phillip Glass or John Adams, many times it is the pulse that drives you. And although the music can be repetitive, the movement should continue to grow to a peak.

8.) Have you ever had the chance to work with musicians and have them perform live on stage with dancers?
If so, how does live music influence the interpretation of your choreography?

(MM) Yes, I worked very often like that, particularly with improvisation-musicians. I considered my own body as a “moving” instrument. We were a band; me, I was just one of the instruments. I was applying the same elements that define music to my dancing: harmony (in terms of body-verticality), rhythm and pulse (reproduced by my body-parts), timbre (the quality of my moving) and so on.

Live music on stage gives a “deeper” interpretation of my choreography (because of this “intensified” sonorous perception).

(JS)

I prefer it for most original work; however, if I am working for a particular contemporary mood or flavor - i.e. club or R&B / soul - the pulse and lyrics are important

(DJ) Live music is as variable as live dancing, so the interplay between dancer and music, or choreography and music, is a living thing to be acknowledged and embraced.

(MSN) Yes, I think it affects dancers the most – their rehearsals must get them to the place where they can work with the variations inherent in live performance.

(RW) Yes, I have done several projects with live music. I have always also used those to design single passages or the whole performance (within the meaning of a real-time composition) with improvisation. This gives a performance a lot of liveliness and spontaneity, in which the actual situation is incorporated. Very exciting! [This is] a real dialog between music and dance.

(JPL) Yes. It is a wonderful world of give and take and an on-going dialogue with musician and dancer. Both have to be in tune with the other – rhythmically, dynamically, phrasing, accents, etc. It brings to life movement and sound in its most stimulating form.

(GH) I did various projects that had this kind of combination. It was very fashionable where I studied as well (Amsterdam). However, there was always a slightly naïve projection behind it. I don't need to have the musician always be present on stage. For me this is a choice that can be made.

(BS) Depending on the experience of the dancer and their own musicality it can be valuable, but sometimes performers fall apart.

(ZK) Yes, performing live on stage with the dancers has occurred in 3 instances.

The live artist offers a distinct distraction from the choreography and I think the choice is dependent on what one is trying to reveal with the work. If the dancers create the sound score through their movement I find it very organic and beautiful and it usually enhances and underscores the movement. The physical presence of a separate musician on stage can be very tricky because it draws attention to the person and away from the movement or the visual choreographic image. In this case the pedestrian nature of the musician needs to be echoed by the movements and stage presence of the dancers if I wish to integrate them into a whole somehow. I feel I need to work intensely on the interconnectedness of the performers to make the musicians and dancers part of a whole, so that the meaning of the work moves to the forefront. This however is also dependent on the theatrical presentation of the particular work and the environment I wish to create.

(JG) See question #2

The presence of the live musician did not change the interpretation of the choreography as much as it changed the variability in the dancers' ability to correctly execute the choreography due to changes in timing and musical cues each night in the performance by the musician.

(VCR) Yes. Like I said in question #6, the element of the live performer opens a new world of possibilities to interpretations of the viewer, the audience. My ideas are intended to be clear and specific but no one has control over what others might make of it.

The live performer is a complex being that plays a role in the outcome.

(RG) Yes. I think live music brings a wonderful element of performance – I think the musicians become part of the dance then and you can't just ignore the staging/placement of them, as there is great power in sharing the stage with the musicians. It's easier to watch the musician because they stay in one place so you have to be careful where you put them, and then also there is the issue of whether or not you acknowledge one another's presence on stage, etc.

(JB) Yes, I have. Unfortunately, the experience I had in this regard was not a good one. The taped version I had been using in the studio for the dancers [for rehearsals] sounded very different than [...] the quartet that played it live. There were more instruments and a consistent tempo which made it much more helpful for the dancers to hear it. It was a difficult piece of music with difficult timing. The live musicians interpreted some sections differently and the tempos were not always consistent with what we rehearsed to, thereby throwing off the dancers.

Since we did not get to work with the live musicians until the actual show, it did not affect my choreography process. It affected the actual performance. They took much longer pauses in between sections and it sounded much different and their slower tempo threw off the dancers – I was mostly concerned about my dancers and their presenting the piece as good as possible under these circumstances.

(PD) Yes, many times – from a full orchestra to a blues band! There is nothing like dancing to live music. I think it invigorates dancers! I only wish budgets for productions could have more of these collaborations.

What sorts of interactions do you see between musicians and dancers?

(MM) They influence one another (in the best of cases), so that a third level will develop. There is the level of the music and the level of my moving. Third is the level where my moving can be modified by musicians, and vice versa.

(DJ) Timing. Also, they must not think of the other as a machine ([i.e.] something that will do exactly the same thing during rehearsal and performance).

The interaction is an exchange. It is a communication that expresses something abstract.

(RW) Improvisation and mutual “throwing” of impulses (to the other one), dialogue, changing of leading and following, where the dancer also partly produces sounds (e.g. generated by the movement) and the musician communicates with the dancer with elementary movements, etc.

A very versatile field and always worth a try...

(JS) All sorts

- dancers as musicians
- musicians as dancers
- dancers illustrating music
- musicians moving in and around dancers
- any combination of the above

(JPL) Dialogue, listening, sharing, being sensitive to each 's art form and what they are sharing. Support – contrast – intensity – argumentative, territorial – domination – the whole emotional gamut.

(GH) In my work, everyone is a performer. So, both can cover the entire spectrum of possible interaction that the piece requires. There are mostly no borders of specialization between them.

(BS) It helps dancers quite a bit to have music – also audiences often respond more positively to choreography/musical connections.

(ZK) In general, whether the musician is live on stage or present in the wings, in most of my work it is about distance and independence allowing for a perspective which enables a richer investment in the work. I think the musician usually has more the role of observer and intelligent and creative supporter or enhancer. The dancers usually have to increase their concentration to disregard the sound around them and this creates a certain, usually meditative, concentration which in my opinion greatly strengthens the choreography. At the same time the sound has a distinct impact on their sensation of performance on stage; the atmosphere it creates helps direct their energy and their concentration as well as to support and strengthen what they are trying to convey through their bodies. The presence or absence of sound can hugely affect their performance and sensations during performance. I would say it is most often a great support for their performance. In live performance with musicians there is an element of fun, regardless of the gravity of the choreography. There is an interplay between two artists of different

genres supporting or playing off each other. I must admit that I do greatly inhibit the freedom of the performers to respond to each other very often by my methods of choreographing, which usually prevents the creation of one-to-one music and dance. I tend to continuously try new things, so in different periods of my choreographic career I have approached the use, presentation and creation of music in different ways.

(JG) (I am not sure if I understand the question...)

It is fairly common to see a full drum kit, bass, and piano (drummer, bassist, and pianist) playing live for tap dance improvisation.

I had not seen a full drum kit on stage for a Modern dance piece before, so I was curious to explore the possibilities of this interaction. I also enjoy observing the almost symbolic relationship between the musicians and dancers in a live Flamenco performance.

(VCR) There are dancers that can play music, there are musicians that can dance. I love when they interact on stage, much like flamenco dancers/musicians work. There is the call and response, the dialogue, the limitless of possibilities.

I appreciate the precision of a tempo when that is designed to be like that, but I also enjoy the challenge that both – dancer and musician – face when they are interacting.

(RG) I have seen dancers stop their dancing and play the musicians' instruments onstage, I have seen the musician placed downstage while the dance happens behind it and vice - versa, I think the easiest sympathetic relationship is when

dancers are improvising to music being played or the musician improvising to the dance being danced. I see the closest engagement in those situations.

(JB) In the ballet world, there is not a whole lot of interaction unfortunately, as there might be in say, the flamenco world where [musicians] are much more incorporated and on stage with the performers. A symphony for a ballet is usually in the pit, and they never see one another. A principal dancer would only have contact with the maestro as far as adjusting tempos. I think they are two completely different worlds. One time I experienced a musician being in shock that I could read their music over their shoulder and hum it.

(PD) I am not avant-garde enough to have the musicians up “moving with the dancers”, nor would I encourage dancers to play instruments while dancing. But the exchange of dancers and musicians complimenting each other in a live performance, complete with artists having made beautiful sets, costumes highlighting the visual effects along with lighting makes for a most breathtaking live event.

PART 2

Now please listen to the four short excerpts of music included in this survey package, taken from Maurice Ravel’s String Quartet, second movement.

What jumps out at you in terms of how you would choreograph to this?

What about the music stands out, and what sort of movement possibilities/imperatives does it suggest?

Remark: Thirteen of the choreographers have answered the questions in Part 2.

(GH) Truth told none of these pieces would find their place in my work. I have a strong tendency in my private music listening for sound scapes, drone and experimental noise, so even on a personal level, the music strikes me as outdated. I appreciate the skill and craftsmanship behind it, but in the central European working environment I operate in, this kind of music is only used in the most conservative forms and even there not so much anymore. I think when Ravel wrote this, it was of great importance. As an artist however and here I do see myself working in the spirit of people like Marinetti, Cage, Hülsebeck and the Situationists, I can see the use of such music as simply not appropriate for someone who makes a new work in the early 21st century. Again, I understand and appreciate when people do so, but the paradigm of my own creations is strongly focused on pushing limits and finding new forms. A non-ironical use of Ravel remains therefore impossible.

Excerpt 1

(MM) [*The more the music pressures/pushes, the more I oppose/drag.*]

My first reaction to the tempo of the music was: moving extremely slow.

With such an ostinato in pizzicato I would first watch all along the horizon on stage, and afterwards start a slow Tai Chi flow in a complete legato.

(DJ) Staccato with suspension at the end of the clip.

I see light footed movement, which changes direction, upright, very vertical body, small jumps, focus upward. Driving pulse that forces the dancer to travel through space.

(MSN) Petite Allegro - sharp foot work (strings plucked); intricate detail with the feet = bright mood

(JS) I am responding to the plucking sounds

- seems very light, quick footed movement perhaps
 - suggests a narrative – perhaps with solo figure joined by another figure
-

(RW) *First of all: I would not use this music for contemporary dance; for me it rather suggests neo-classical dance, likely with point shoes...*

For me the music here is characterized by a strong rhythm; formally, a junction is taking place which is leading to an end. Movements with staccato character are appropriate, which are, however, embedded in a flow of movement. This formally increases and leads to a climax.

E.g. fast allegro-jumps, grotesque figures, commenting, ironic, exaggerated, pantomimic in the sense of character roles (“harlequin/jester”) where applicable.

(JPL) I would be rhythmically driven – also this is a very familiar piece of music and I have seen dances choreographed to this, so I would be quite biased by this piece of music.

Movement possibilities: sharp, staccato, distal movements, fast, ballet movements, on the beat movements.

(BS)

- the plucking rhythms
 - the layers of strings
 - the call and answer feeling
 - calls for footwork and staccato physical accents
-

(ZK) The rhythm. I become drawn by the initial rhythm and it must be carried on throughout the quieter, slower parts. This rhythm draws me through the sensation of suspense during the piano moments, in the direction of something astounding and full of promise.

(JG)

1. staccato notes
 2. sense of driving forward motion to the music.
 3. A sense of building to a suspension
 4. footwork, traveling, alternating directions
-

(VCR)

Lots of energy, water and fire.

What stands out is the staccato of the music and how the strings are being plucked.

(RG) Something starting or beginning... a methodical procedure unfolding onstage – maybe a transformation of some sort.

(JB) I like the music – the first thing I hear or “see” is whether it is a solo or a group movement and whether it is female or male or a pas de deux or several couples. I would have liked to heard more to really get a full sense but I do see this on pointe and mostly see it as a female solo, but it could be done with more than one girl.

Excerpt 2

(MM) Music inspires me “spiraling”, the joy and pleasure of off-balance (off-balance turning / falling / running), the wish to cover huge long diagonals in space.

I would feel “full of air” inside my body.

Because the music has a strong impulse on 1, I would count, 1 (2,3,4), 1 (2,3,4).
[On each downbeat] I want to fall once more.

(JS) spinning, turning, building energy; interrupted by strings plucked

(MSN) fluid torso and arms in relationship to the sharp feet noted in #1

(DJ) Flow, interweaving of dancers, movement in canon, arches so that the arms are creating arching pathways in space but the feet are moving faster than the arms. Most of the traveling goes on diagonals, from downstage to upstage, reflecting the climaxing motion of the music, it gathers and increases in bulk [?].

(RW) *The music features a fast basic tempo, which is overlaid with melody lines. The ideal step here would be `coursus`, fast scuttling en pointe, which allows for a hectic, spinning-around movement through the space, interrupted or rather increased through some big jumps, which correspond to the accents in the music and which accentuate the locomotion through space or which optionally can be used for shifts of direction.*

(JPL) Group formations, lyrical, full body movements, fast, or go[ing] to the opposite way: work against the music, move slower than the natural rhythm of the movement. Work with silence and isolated, gestural moves; all possibilities [?]. I have to listen to the music over and over again with different intentions before I make choreographic choices and how I want to use the music to either support the music or not.

(BS) A sweepy sound supported by a rhythm underneath. [The music] calls for continuous sweepy movement accented with physical positions that form and melt into another.

(ZK) Again the rhythm speaks to me. In this case it encourages movement which does not support the style of music, otherwise I feel underscoring the fluidity of sound with movement would make it superficial and cheapen it (both music and movement). It is tempting to create soft fluid arm movements which do in fact link into the sound. I am not clear in which direction I would go. The mood of the music, as in the previous case, has an effect on the direction in which the choreography would progress.

(JG)

1. sense of flow/fluid sound riding over short, quick, articulated notes
2. Sweeping movements in upper body contrasted against tight footwork in the lower body.
3. Partner-work with pull/counter-pull in the weight.

(VCR) I would use plenty of flow, to play with the melody, never ending, constantly moving; sometimes slow – to contrast the speed of the music.

(RG) I see a group of dancers swirling about the stage - something like a river flowing quickly with turns and twists - or leaves being blown about onstage.

(JB) I see this as a *pas de deux* with male/female. Girl *en pointe*, – very moving – as in lot of lifts – running – lots of traveling, possibly running after each other at times – not necessarily a romantic *pas*, but danced with purpose – reminds me of the *pas* “Spring Waters”.

Excerpt 3

This excerpt is a short passage from the previous excerpt. How would you count here?

(MM) 1 strong (2,3,4,5,6); 1 strong (2,3,4,5,6), 1

(DJ) I hear a six count phrase.

(MSN) 1 + a 2 circling/turning

(JS) I wouldn't count – 3-4 broad respond to the pulse

(RW) *In general, I do not count the music, if possible, but try to follow the movement flow of the music in conjunction with coenesthesia [body feeling] for the physical-cognitive perceptible length of the movement during the execution of the movements. Otherwise: &6 &7 &8 &a1 &a2 &a3 &a4*

(JPL) Generally, I don't count but sing or hum the melody unless I am intentionally letting the pulse drive the dance. There are many ways, again how to count - slow phrases or double time [?] - depends upon how you want the music to co-habit.

(BS) the quick 4

(ZK) Initially in 4 and then in triplets; i.e. 1&2&3&4&123.223.323.423. It can be either or both.

(JG) Counting in phrases of 6, accenting every 2 beats (i.e. 1,2,1,2,1,2, for each measure). First measure accenting in 2, second measure accenting eighth notes in 3.

3.) Excerpt 3
This excerpt is a short passage from the previous excerpt. How would you count here?

Counting in ~~phrases~~ phrases of 6, accenting every 2 beats (i.e. 1,2,1,2,1,2 for each measure)

OR

First measure accenting in 2, 2nd measure accenting

Figure: JG's rhythmic notation.

(VCR) And – a – 1, and – a – 2, and – a – 3...

(RG) 1234, 1234, 1234

(JB) in 6's

Excerpt 4

(MM) [*Discovering oneself curiously.*] I want to explore inside my joints: how much can I rotate inside my joints, how much may I extend my body-parts, how much space can I blow inside me? The suggested action could be a quite active way of dancing, looking for space on stage and listening to the answers of my body and of the environment where I play.

(JS)

- slower movement – quiet stage
- beginning of something

(MSN)

- mystery/longing
 - fluid movement
 - lifts perhaps
 - also gestural/evocative gestures
-

(DJ) Dramatic. People searching for each other, but then turning away. I hear not a world full of emotional anxiety, but rather a desire for the individual to open oneself but not receiving a connection/communication to do so.

So, although it sounds dramatic to me, I would not over dramatize the dance, but let the chord progressions resonate in the body, so it does not connect to a story, but rather an abstract representation of yearning.

(RW) Here, the music and the movement-flow respectively are affected by the melody, which in turn is affected by its tonality's expression.

Appropriate movement quality: flowing, slowly, tied, merging, calm, lyrical.

E.g. starting on the floor, then balancing, big movement ("high legs"); as a solo or "pas de deux."

(JPL) In a duet, small group or solo – full body movements.

Adagio, lyrical qualities. It has a heaviness, sadness to its tone, dimly lit with specials or with intensified shadows cast on the syc [?].

A duet of love, loss, tenderness or youthful awakesness. Movement comes from center out using the torso as main initiative of movements. Long- prolonged gestures.

It is difficult for me to give such [?] judgments to musical scores. I have to live with them for a long time – generally it is best if I listen to the score in motion – walking, running, doing the elliptical. I choreograph with more ease if in motion.

(BS) I would work with very fast and dynamic movement with clear rhythm to contrast the sentimentality and legato.

(ZK) I would count in a slow 4 count which slightly drags. (I am unsure here if you want an answer to the previous question or as in the first two so I will briefly answer both.)

I find the movement deeply melancholic and suspenseful. It is charged and offers the promise of the arrival of something possibly menacing. In this case I can in fact imagine movement which does somehow support the music in its speed and active concentration. It would be a challenge finding an intelligent and effective balance so that the movement reflects and yet does not copy and occupy the indications of the music.

(JG)

- Melody
 - feeling of wandering, darkness, somber
 - Image of being lost in a dark wooded forest
 - Slower, adagio movements, extensions, sense of lengthening and movement outward, long lines in the body.
-

(VCR) Dreamy sequence, memories, and sorrow.

(RG) Slow earthy movement – movement on the floor unfolding, rolling across the stage... sinewy arms – spirals

(JB) I see this as a *pas* – with three couples – the focus sometimes being on one, sometimes shifting to another. Sometimes all three couples interacting and changing partners – in a subdued matter – sustained lifts – interweaving.

Appendix I: Ravel, String Quartet, II, Form Diagram

		Maurice Ravel, String Quartet in F, II – Assez Vif et Très Rythmé. Form Diagram																	
		A 1-88 Assez vif - Très rythmé ♩ = 92						B 89-149 Lent ♩ = 46						A' 150-198 1 ^{er} tempo					
Form Measures Tempo		a 1-39		a' 40-88				e 89-98 Lento- theme 	f 99-103 New Motiv? 	B2 104-110 b-arco (pizz.)	B3 111-114 b-arco (pizz.)	A2 115-119 a-pizz. (b- arco)	e' 120-128 Lento- theme + a-pizz.	ret. 129-149 a-pizz.	a'' 150-161 See mm. 40-51	b'' 162-178 See mm. (mm.13- 20 exact)	c'' 179-188 See mm. 69-76 (V. 1 exact)	d' 187-198 a-pizz.	
		a 1-12 a-pizz. 	b 13-29 b-arco 	c 30-39 chrom. pizz. 	a' 40-51 a-pizz.	b' 52-58 b-arco + a-pizz.	c' 59-76 chrom. pizz.												d' 77-88 a-pizz.
Motivic Work		Except 1 		Except 2 Except 3 				Except 4 											
Written meter		6/8 (3/4)						3/4 ♩ = 46		3/4		3/4		6/8 (3/4) → 1 ^{er} tempo					
Metrical ambiguity		3/4 vs 6/8 m. 28- 24, 32, or 6/8?		3/4 vs 6/8				3/4 OR 3/2 (see mm. 91/62)		3/4		3/4 vs 6/8 m. 178- 179, 3/2? 3/2? No 6/8!		6/8, 3/4, or 3/2?		3/4 vs 6/8		3/4 vs 6/8 m. 68 1 ^{er} vs 1 ^{er} vs clear 3/4! (first time in Vla+Vc) The end clarifies...	
Harmony		Notated: AM or f- sharp m; C-sharp- dorian (13) C-sharp Mixolydian (30f) as dominant		?				Notated : B-flat or gm Theme in Vic. sounds like dm.		A ₁ ?		C- lydian		am		am		A3 progressi on C-E-G-B- flat as CM/am A-E-flat ?	

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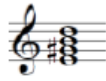
Appendix J: Chord Symbol Definition of Analysis

In the second movement of his String Quartet in F, Ravel uses harmonies not easily to explain with standard music theory tools. Thus, a list of chord symbols and their meaning is provided for a clear understanding. When appropriate, Roman Numerals are used for the analysis (see Appendix K); mostly the chord symbols below will serve as tools.

E= E major

e= E minor

E-Mixolydian= E major with a minor 7th



E⁷



e⁷



E Δ 7



E^{7,5}



E^{9 7}



E^{9 7}



E^{13 9 7}



E^{9 7,5,9}



E^{#11 7}



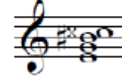
E Dorian = E minor with #6



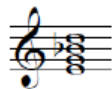
E Dorian⁶ = E Dorian in first inversion



Fr^{4 3}



Ger^{6 5}



E half-dim.

Appendix K: Analysis of Maurice Ravel's String Quartet, II

II Maurice Ravel String Quartet in F

A Assez vif - Très rythmé (♩. = 92)

no leading tone: aeolian

Legend:
■ = a pizz. motiv
■ = b arco motiv
■ = lento theme

Cello plays pizz throughout the whole A section

6

11

15

see vl. 2
see vla
see vl. 1

repeat w/ switched voices

18

new
c# dorian 7.

21

detailed dynamic markings

pizz. arco pizz. arco

pp mp mf p

AΔ7 F#7 AΔ7 F#7 AΔ7

26

mf sf pp

F#7 E7 (mixolydian scale starting on E) C#7 (dom)

31

mf p

repeat 8 ↓ overlapping of new beginning & ending

C#7

Quartet in F Major 65
 section is in C# mixolydian!
 ⊗ however, F# is never emphasized again, but we stay in C#M =>

- varied repeat

37 *pizz.*
p *pizz.*
ppp *p*
ppp *cl*
mp 7 as LN
cm

42
f
mp
i *repeat* *VI6*
tr. (#2)

47
mp *arco*
pp *mf* *cont.*
mp
mp
f *f* *ff*
E *V#* *7* *13* *E* etc.
f *V#* *ff*

52 *pp* *bien chanté*
arco
ppp *arco*
ppp *a#* as before as "special" note
pp

now the *a#* makes it "mixolydian" if enharm. re-interpreted.
F#
C7 (*m7* = augm. 6th)

66 Maurice Ravel
 (but the *CM* + *a#* sounds as *CM7*)

CM → *F#M*
a# → *a#*
g → *f#*
c → *c#*

MODAL SHIFT

vla. line from mm. 1-2 now in cello → new harmony

repeat; again w/ switched voices (as before)
see m. 17 ff.

55 *pp* *pp* bien-chanté

58 *pp* *pp* *p* *pp*

61 *pizz.* *arco* *pizz.* *arco* *pizz.* *arco* *pizz.* *arco*

65 *mf* *mf* *ff* *pp* *pp* *pizz.* *p*

chromatic desc. line

*G*¹³/₇ *F*¹³/₇ *E*^{b9}/₇

"expanded" bassline; see mm. 47-48.

Quartet in F Major 67

(chrom. desc. line)

70

second voice added (g#)

ab ⇒ g# (enham.)

E^b7 cont. mp G#7 (B# / C = ct) C7 (E = ct) mf E7

76

ab ⇐ g#

e - f
g# - ab
c - c
(aug.)

? fm

am

am

am

82

pizz. p pp

mettez la Sourdine

mettez la Sourdine

arco pp pp

mettez la Sourdine

ppp

88

H Lent (♩ = 46) 6/8 3/4 3/4 6/8

arco MS parallels

mf

arco

portato

mettez la Sourd. très expressif

key: BbM?

B SECTION

sounds as if in d̄m

cédez a Tempo

94

mf tres express. pp

sounds like a new theme...

99

p ppress. pp

D5 progression D → G → C → F → Bb

104

mf express. pizz. pp

$\hat{5}-\hat{4}-\hat{3}$
 instead of
 $\hat{3}-\hat{2}-\hat{1}$...
 (m. 13/52)
 or
 $\hat{6}-\hat{5}-\hat{4}$...
 (m. 21)
 or
 $\hat{7}-\hat{2}-\hat{3}$...
 (m. 64)

109

rall. en harm. arco a Tempo pp expressif pp

Ab 9

c# dorian (see m. 13 ff)

70 Maurice Ravel

112 **pressez** *memory of pizz motif*

113 **a Tempo** **pressez**

115 **a Tempo** **rall.** **a Tempo** *un peu marqué* *Clydian*

118 **rall.** *Clydian*

m. 119 could be:
 $F\#^b9$
 $F\#\#7$
 $b5$
 or $C^7_{b5} (=F\#\#)$
 or $C^7\#\#11$
 or F^4_3 in Bb (add g)

C^4_3
 \downarrow
 $V^{\#\#}_3/V$
 in BbM

$F\# - A\# (=Cb) - C - E - G$

K
a Tempo (♩ = 30)

120 *arco*
p *espressif*
p *quasi arpa*
pp *a. ob = tritone*
pp **F** **RED POINT** **B⁷**

121 (repeat)
cm
simile

122
gm

123 *g d bb* **rall.**

G^{7#11}/F
(V/ii)

creating texture → Color w/ repeating pattern (Bb:)

now w/ leading tone, different than beginning

The motiv-work on this page w/ "a" can be found in mm. 1-8 in vl 1.
 Quartet in F Major 71
 motiv | repeat ↗ sequence ↗ sequence

144

drops out

now w/ M2!

resc. in dynamics
• density
• range (contrary)
• harm. rhythm

mf *p* *mf* *mf*

drops out

mf *mf* *mf*

G# (b9) *G# 9* *G b5* *D#6* *E b9* *D 9* *C 7*

A'

150

See m. 40
- 51

*Viol. repeat,
thicker texture*

M

ff *ff* *ff* *ff* *ff* *ff* *ff* *ff* *ff* *ff*

am

no back?

155

different

compare m. 47

no scale (m. 49)

tr. (#6)

mf *mf* *mf* *mf* *mf* *mf* *mf* *mf* *mf* *mf*

ff *ff* *ff* *ff* *ff* *ff* *ff* *ff* *ff* *ff*

169

N

ff *ff* *ff* *ff* *ff* *ff* *ff* *ff* *ff* *ff*

mf *mf* *mf* *mf* *mf* *mf* *mf* *mf* *mf* *mf*

mf *mf* *mf* *mf* *mf* *mf* *mf* *mf* *mf* *mf*

repeat of m. 13 - 20

164

167

170

174

see m. 21-29 same motu/thematic material, but different tonality

new

et/eb x

A#

Eb + G - Bb - Db - Fb

b9

Typo? should be Bb instead of Bb in cello!

← (almost) chromatic line ↓

A7 Eb M7 m7 C# 7 (m. 112)

c#-e-g-b

see m. 69-76, exact repeat of vl. 1, vl. 2, via + cl create different harmonies

178 *pp*

183 *pp* *pizz.*

188 *pp* *arco* *arco*

193 *mf* *ff* *ff* *ff*

retenu a Tempo

repeat m. 189/190

repeat m. 191

continues

a = PED!

C dom → F now a = deceptive

Quartet in F Major 75

E^{b5} / B^b ("V")

[G-B-D-F-A^b (=g#)]
g# = a^b = b⁹!

C-E-G-B^b
⇒ A3 progression

motif vl. 2 187/188

switched voices

motif in 10ths vl. 1/187/188

ends on beat 1+

arpeggiation of CMm7?

CM^{b7} → CM⁶ 5+g

CM³⁺⁷

CM⁷

B^b 7

G#

A

E

B^b

E

A

Appendix L: Complete Video Analysis of all Choreographies with a Musical Description for each Section

In order to follow the musical descriptions, it is recommended to refer to the score (Appendix K) at all times.

Abbreviations: vl1= violin 1; vl2= violin 2; vla= viola; vcl= violoncello.

Five student choreographers have been asked to independently create a solo for the second movement (*Assez vif, Très rythmé*) of Maurice Ravel's String Quartet in F. The dance genre was free to choose.

Dancer A: Aaron J. Hooper

Dancer B: Kati Nybakken

Dancer C: Stephanie Montoya

Dancer D: Sun-Ah Lee

Dancer E: Jenny Smiley, choreography by Jacqueline Garcia.

Note: Dancer C has choreographed her dance until section b'' only.

In **bold** you will find examples of findings described in Eitan and Granot's study (Appendix D).

A-PART

Section a (mm. 1-12)

The first two measures present the first theme in violin 1 (vl1), the a-theme: Characteristics are the pizzicato marking, the ambitus of a fifth as well

as the mode of a-Aeolian. In mm. 3-4 the theme is exactly repeated, and mm. 5-6 present a copy (theme repeated a third below starting on F in m. 5). M. 7 starts out as another copy of the original theme, again a third below, thus starting on D; however, the theme is shortened to the characteristic fifth.

Section a is metrically ambiguous, with possible readings in 6/8, 3/4, and 3/2. Ravel indicates two different time signatures at the beginning: compound 6/8 and simple 3/4. In the first two measures the 6/8 time signature can be found in violin 2 (vl2) and viola (vla). We see six eighth notes per measure with a dotted quarter note as beat. VI1 indicates 3/4, thus, three quarter notes per measure. The first two measures (the first phrase) can also be interpreted in 3/2 (three times 2/4). Furthermore, the *forte* pizzicato marking in all instruments gives the passage a particular character.

From measure 8 on, Ravel introduces a dominant expansion. Noticeable are the trills on E¹, E², and E³ in violin 1, respectively on beat “2” of measures 9-11. Furthermore, the cello (vcl) (m. 11) and then the viola and violin 2 (m.12) play an arpeggiation of the E major chord emphasizing beat “1+”, to which the dancers will respond.

Dancers’ responses:

Dancer A:

At the beginning of the video there is only blue light, since the quality of the video recording is not good. Dancer A enters the stage with an *attitude* from stage right on the last accented E major chord (m. 12, beat “1+”).

Dancer B:

The video quality is bad and blurry as well. Dancer B has entered the stage and stops center stage.

Dancer C:

Again, the video quality is blurry at the beginning. Dancer C is sitting in the middle of the stage, facing upstage (back turned to the audience). She executes a slow reaching angular motion with the arms.

m. 11 (on beat "1"): response to cello eighth notes: faster arm motion

m. 12: head: right-left on beat "1" and "1+"

Dancer D:

The beginning is also blurry.

Dancer D starts her performance center stage lying on her back and slowly moves her legs. There is a clear response to the arpeggiation of the E major chord in m. 11 (sitting up) and m. 12 (crossing the arms in front of the head).

Dancer E:

Dancer E starts *on* stage: she is facing the audience and begins the choreography from center upstage. Her feet are in fifth position, the arms in *bra bas*. We can see her movement from m. 3 onwards.

Her foot work could be outlining the 3/4 time signature. She executes steps on each quarter.

Interesting: There is a rest in her movement on the downbeat of m. 6. She starts walking again (shifting the weight to the side) on beat "3", as an upbeat to m. 7.

m. 10: on each beat "2" and beat "3" she performs a quick sliding step first to the front then to stage right.

m. 11 (beat “1” and “1+”): clear response to the two eighth notes with a *passé*.

m. 12 (beat “1” and “1+”): she executes a quick motion into a *grand plié* in second position (with the arm moving into second position as well): out on “1”, back to a fifth position on “1+”.

Very rhythmical, very musical, staccato like, machine-like (with a stiff upper body).

Dancer C, Dancer D, and Dancer E respond to mm. 11-12, which could be described as the most obvious ‘musical event’. The feeling for a time signature seems to be different in all interpretations.

Section b (mm. 13-29)

Section b presents the second theme (referred to later as the b-theme) of the A-Part, now in Dorian mode (as opposed to the a-theme, which is Aeolian). All instruments play *arco*, *bien chanté* and *pp* or even *ppp*, thus, providing a contrasting mood to the opening. Additional rhythmic ambiguity as well as distinct motivic work and articulation make this excerpt intriguing. The A-Part contains two main themes: the a-theme, played pizzicato (see above) and the b-theme, played arco, which is first presented from measure 13 onwards. The b-theme begins in violin 1, and will be repeated in the viola in measure 17. In measures 21 to 25, parts of both themes (one bar motives) alternate each measure.

Of special interest are mm. 26-29, since this passage reveals rhythmic ambiguities: Violin 1 and 2 seem to be in 2/4 or 3/2 (three times 2/4). The viola is ambiguous in itself; the first two measures are in 6/8 and the following two are in 2/4 (or 3/2). The ascending scale of the cello can be thought of as “un-interpreted”, since it could represent any of the possible meters. The dynamic

markings indicate a 3/2 time signature (two measures *f*, and two measures *ff*, followed by *p*).

Dancers' responses:

Dancer A:

The video quality is still very blurry.

mm. 26-29: The *pirouettes* are outlining that he hears each C# as new downbeat. Thus, Dancer A hears the "measures of interest" in 2/4 → 3/2.

Dancer B:

She divides the b section into two measure phrases:

mm. 13-14: she holds a certain position for those two measures. Within, she slowly moves to the next position, which begins on m. 15.

She holds a position during mm. 15-16, changes on m. 17 etc.

The only one-measure-phrase is in m. 25 (arm up), followed by the other arm moving up on the downbeat of m. 26 Dancer B holds this position for four measures - until the end of the phrase, thus, we do not know how she counts in the metrically ambiguous measures 26-29.

→ She is very responsive to motives/phrases.

Interesting: mm. 13-15 (4 measures) + mm. 17-20 (4 measures) + mm. 21-25 (5! measures) + mm. 26-29 (4 measures).

I think Dancer B wants to keep counting 2 or 4 bar phrases, this is why she responds to m. 25 as one bar only.

Remark: Why did Ravel insert an "extra" measure?

Dancer C:

She is still sitting; the angular arm motion changes to waves, similar to the motion of wiping a window in front her.

mm. 13-16 (4 measures!): right arm;

mm. 17-20: left arm (ending on the floor);

mm. 21-22: fast right arm motion, also ending on the floor,

She now responds to the a-motif in m. 24 by tapping her hands on the floor (4 times) in 3/4. The downbeat, however, cannot be seen in the down motion of her hands, but in the UP motion.

Mm. 26-27 are heard as one phrase (bowing down) as well as mm. 28-29 → she presumably hears this passage in 3/2.

Dancer D:

She executes a more flowing-reaching motion with her arms (still sitting). The material of mm. 13-16 is repeated in mm. 17-20. Dancer D also hears those four-bar-phrases, which are - according to her movement - divided into two two-bar-phrases.

She hears m. 21 as a shortened b-motif (Ravel gives the impression that the b theme might start over again, but it does not) and executes a condensed 'summarizing' motion. When the a-motif returns in m. 22 she changes the direction of her body to diagonal left front and back.

A clear change in movement quality happens in m. 28 (when the cello plays the ascending scalar line): both feet and arms are rhythmically pedaling/struggling in 3/4 or 2/4?

→ I hear this passage as a return to 3/4 (CONSERVATIVE LISTENER), thus, I want to see this happening in her movement. But Dancer D could

as well hear mm. 28-29 in 2/4, which would be the result of the former “metric change” in mm. 26-27 (RADICAL LISTENER).

Dancer E:

Dancer E starts the new section with a *dégagé* to the side indicating the new, more flowing quality of the music (vl1, vl2 and vla now play arco and legato). In general, her movement is now softer and more “melting” than in section a.

Her arms are mainly in second position, but the motion is more floating and fluent.

Dancer E recognizes the pizzicato a-motif in m. 22 expressed with a *pas de chat* to the right diagonal. This is the first jump with both feet off of the ground so far.

Dancers show a very different perception of phrase lengths. Especially interesting are measures 26-29, where ambiguity is obviously wanted by the composer.

Section c (mm. 30-39)

Ravel uses those ten measures to lead back to the a-theme, thus, section c can be called a transition section. Harmonically, C#⁷ is expanded with an emphasize on C# and G# in the cello (30-34) on each dotted quarter note. Measures 30-31 show a clear three-against-two (3/4 in vl1, vl2, and vla against 6/8 in vcl). Vl1, vl2, and vla are playing a 32nd note tremolo. Measures 37-39 intensify and are played pizzicato again.

Dancers' responses:

Dancer A:

The video is still blurry. Dancer A is running in a half circle to upstage, following his hand. Then he runs straight-forward and ends facing upstage (with his back to the audience).

Dancer B:

She is looking upwards, her right arm is up and her left arm spread out downwards to the left.

During the entire passage she is slowly moving downwards and backwards as well as arching her back, as if 'melting'

→ **the scalar downward melodic line is represented in the downward moving motion.**

mm. 37-38: right arm suddenly falls down and swings, while body twists in order to face stage left.

Dancer C:

She is still sitting on the floor and executes three full circles with her upper body (in no apparent rhythm).

On the syncopated rhythm in mm. 33-34 her head is up on the accents (beat "2"); the fourth body circle initiates the movement into a new pose: the right leg is straight back while she is facing the stage left back diagonal.

mm. 37-38: arms slowly move up to second position (preparation).

Dancer D:

Dancer D is still on the floor.

mm. 30-31: she repeats the pedaling with feet and arms.

mm. 32-33: rises to a diagonal position, which has its highpoint on the accent in m. 33.

mm. 37-38: rhythmic tapping of hands on the floor in 3/4. **While the musical line rises, she moves downwards (interesting, because it contradicts findings of Eitan and Granot).**

Dancer E:

m. 30: highpoint, before the musical line moves downwards: both arms go up supported by a leap to the front, after which the direction changes to the back.

mm. 33-34: syncopation can be seen in *rond de jambe par terre* which leads to a different facing for a very short time.

The most obvious response happens in mm. 37-38 (leading back to the a-theme): she is holding still in second position (both arms and legs). Now she is moving her arms up and down (as if pressing down something heavy) in 3/4 in m. 37: on “2” and “3”, and in m. 38 maybe on “1” and “2”.

Interesting: m. 39 (the “extra measure”) is used to run forward in order to be prepared for the return of the a-theme.

Section a' (mm. 40-51)

Section a' is a varied repeat of section a: The main a-theme is now split between v1 and v2, and the cello takes over the viola line from mm. 1-2. Furthermore, mm. 47-49 vary from mm. 8-10; in the latter measures, the cello plays a downward scalar motion (E-D-C) while the cello now emphasizes E-G-F (this harmonic motion will later be expanded in section b' - mm. 65-69).

Dancers' responses:

Dancer A:

He responds to the beginning of each motif (two bar phrases):

m. 40: shoulders up and down (staccato movement).

m. 42: arms developing (legato).

m. 44: several turns.

m. 46: starts running upstage (also heard as one-bar).

Interesting interpretation of mm. 47-48: movement repeats as the music (B-E-D in vl 1) does. "Pulling/Awaiting/Longing."

Clear accents in the movement on 1.) the downbeat of m. 50 (change of direction) and on 2.) beat "1+" of m. 51: preparation position is executed in a staccato character.

Dancer B:

She responds to the *ff* marking in m. 41(!): the motion quality and direction changes in section a': Dancer E brings her arm out in m. 40, beat "3", pulls her arm *in* on beat "2" of m. 41, repeating the same movement in mm. 42-43; thus, she hears the a-theme in 3/2.

Soft running/prancing in 3/4 until m. 47 where the movement quality changes: longing/reaching.

m. 50: Clear response to the downbeat: changing direction, kneeling down on the floor, covering her ears.

Dancer C:

mm. 40-43 (four bars): touching an imaginary wall in front of her in 3/4 (clearly in three). Next phrase is five measures long: mm. 44-48, where

she slowly moves her arms downwards. m. 48: turning around (nice response to the scale).

Accents of mm. 50 and 51 are not reflected in her movement that clear: she sits up straight and then lies down on the downbeats of those measures.

Dancer D:

She probably hears the motif in 3/4, in two-bar-phrases.

Interesting: Dancer D is sitting up on beat “3” of m. 41 and down on the downbeat of m. 42; the same happens from m. 43 to 44. It seems that she wants to lead into the next motif.

She now uses the one-bar-a-motif of m. 46 to get up.

mm. 47-49: Dancer D responds to the B-E-D motif: she repeats the same movement three times like in the music. (She ignores the scale though!)

m. 50: turn with hands winding up.

m. 51: collapsing down. Not recognizable if on beat “1” or “1+”.

Dancer E:

Dancer E responds to the two-bar themes; sometimes those are even divided into one-bar-phrases:

m. 40: change of quality

m. 41: *pirouette*

mm. 42-43: change of direction, running to the left upstage diagonal.

m. 44: leap (*enveloppé*-pulling back) changes quality and direction.

m. 45: *soutenu*. The shortened a-theme in m. 46 is also perceived as such (This footwork is probably taken from the beginning.)

Very interesting: mm. 50-51: the important notes are on beat "1+" (clear motion-accent here). Dancer E executes a *pirouette* in m. 49 on the upwards scalar motion which is followed by a twisting turn out of this movement on beat "1+" of m. 50.

The most interesting part spans mm. 50-51: accents on the downbeat or on beat "1+"?

The phrase lengths are again of importance.

Section b´ (mm. 52-68)

This section is a varied repeat of section b: Ravel uses the same written pitches on the staves, however, in section b´ there is no key signature given; thus, we are now in C Mixolydian instead of C[#] Dorian (see mm. 13 and following). This harmonic change can be called "modal shift".

Dancers´ responses:

Dancer A:

in 3-4: m. 52 *pas de valse* which he repeats in m. 53 to the other side.

m. 54 and 55 are heard as one unit with a *développé* to the front on the dotted half note in m. 55.

Like in the music, he repeats the exact movement of mm. 52-55 in 56-58.

Response to the b-motif in mm. 60 and 62: hopping in three different poses.

With emphasis on the downbeat of m. 64 (a-theme ends) he executes a leap that has both feet off of the ground.

mm. 65-66 are again perceived in 2/4 or respectively in 3/2 (new *pirouette* starts on the D three times).

mm. 67-68 are used as a preparation for the next section. (Slowly going to *arabesque*.)

Dancer B:

She recognizes and represents the two repeating phrases with her movement choice. **It is interesting that she emphasizes the F# (highest note of the phrase) in m. 53 and accordingly in m. 57 with an accented arm motion upwards.** This upward reaching arm motion becomes the motif of this passage: she also employs it on the downbeats of mm. 60, (61 is an accented turn inwards in response to the pizzicato a-theme), 62, (63 same as 61), 64, and on the D's in mm. 65-66 which implies her perception of 2/4. The fourth time the D is repeated in m. 67 she turns the palm forward and keeps the arm up, extending and reaching further upwards. Dancer B responds very well to the dynamic development, as the highpoint of the crescendo (65-66) is indeed on the downbeat of 67.

Dancer C:

The two phrases (52-55 and 56-59) are heard and represented by two different motion phrases. She repeats those motion phrases in m. 60-64. Dancer C has to make her movement fit: the music is not the same and does *not* justify a repetition of the same movement.

She gets up on m. 65, first sitting, then standing, facing stage right, reaching her arms up on the dynamic highpoint on the downbeat of m. 67.

Measures 59 and 65 have the same ending motion, thus, 65 is at the same time beginning and ending.

Dancer D:

A change in movement quality happens. Dancer D recognizes the two phrases (52-55 and 56-59); however, she does not literally repeat her movements.

Each new section becomes clear by the change of direction, or a new pose:

mm. 60, 62, 64: Those measures show that the b-theme is more prominent for her. In m. 64 she briefly uses the 'pedaling motif' - now with her hands. In the previous section this 'pedaling' motion was executed with her feet.

Interesting in m. 65: she leans backwards, almost as if falling. This fall is released on the dynamic highpoint in m. 67 with a backwards leap (taking the time of two D's). The backward leap is then repeated (but less intense) in m. 68 on the D.

Dancer E:

Clear perception of the two repeating phrases, however, the movement is not literally repeated. It is the movement quality that repeats (jumpy and light, in 3).

m. 59: The movement pauses first on the dotted half and then on the first two beats of m. 60. Beat "3" is a preparation for the leaps in m. 61 emphasizing the pizzicato a-theme.

mm. 63-64: The a-theme is emphasized by the movement choice.

mm. 65-68: She is running upstage in a circle in order to prepare for next section.

Section c´ (mm. 69-76)

Unlike section c, this passage only consists of eight measures, as it will be followed by a “closing section” leading to the B-Middle-Part. V1 is now playing a downward chromatic line in a 32nd tremolo. The arpeggiations of the dominant chords starting in mm. 69, 71, 73 and 75 in cello and viola appear to be a feature to which many of the dancers chose to respond.

Dancers´ responses:

Dancer A:

He is trying to hold the *arabesque*, **but his leg starts shaking (which nicely corresponds to the tremolo in the first violin playing a downwards chromatic scale).**

Interesting: the final `kick´ of the back leg happens in m. 72 on the third eighth note (last note of the ascending arpeggiated line). The dynamic highpoint in m. 72 is followed by a decrescendo; at this point Dancer A starts running in a circle and prepares for the next section.

Dancer B:

In response to the first ascending arpeggiated cello/viola line Dancer B is leaning backwards, to the second one (which leads to the highpoint) she is turning *en dehors*; her arms come to the face. The third arpeggiation is interpreted with another turn in the same direction. For the fourth one Dancer B chooses the following motion: **her arm reaches up, but the**

body moves down into a split. This reflects the upward motion of the cello/viola line AND the decrescendo and the downward moving chromatic line of the violins at the same time.

Dancer C:

She also responds to the four arpeggiations: she stays on one 'imaginary line' on stage. The fourth ascending cello/viola line (m. 75) already represents a connection to the next phrase in her movement choice. Here, in the closing theme, the a-theme will come back. (She prepares for her tapping-motif.)

Dancer D:

Her movement is so subtle. She plays with down- and upwards motion:

First arpeggiation: down sideways.

Second arpeggiation (on beat "1"): up.

Third arpeggiation: (the end of this line seems to be the highpoint for her): down, followed by a fast turn on the last eighth note in m. 74.

Fourth ascending line: she walks to stage left.

Dancer E:

She responds to the four arpeggiations in cello/viola: each time one starts, a new movement starts in the same place of the stage.

Section d (closing) (mm. 77-88)

This section closes the A-Part and leads us to the contrasting B-Middle-Part. Violin 1 keeps playing a downwards chromatic scale (from middle C to G#), while violin 2 restates the a-theme two times in A minor, finally leading to an A minor "final" chord in m. 84. Underneath, the cello starts an alternation of A and

G# in eighth notes from mm. 81-85. While vl1, vl2, and vla drop out in m. 84, the cello continues playing the alternating motion of A and G#, until it arrives on A (now three quarter notes in m. 86, followed by a composed out ritardando). The viola's dotted quarter note C in m. 88 leads into the *Lent* part.

Dancers' responses:

Dancer A:

mm. 77-80: in fifth position: *coupés* front and back (alternating treading) in 3/4.

mm. 81-82 (cello enters with alternating A-G#): change in movement: *grand port de bras*.

mm. 83-84: *pirouette* on each downbeat. (He ignores the phrase end - the A minor chord - in m. 84)

mm. 85-87: back to his shaky *arabesque*.

m. 88: He stops the movements and starts talking.

Dancer B:

First a-theme (mm. 77-78): She comes to lie on her back, stays in this position with her arms spread to the side until m. 85. Here, she suddenly contracts her body (arms and legs), and falls over to the side where she stays until the B-Middle-Part begins.

Dancer C:

mm. 77-79 (one and a half a-themes): executing the "touching an imaginary wall" motion.

m. 80: round arm motion to the right side that ends in m. 81.

She turns around in a circle in *soutenus* from mm. 82-86, where she (approximately) stops facing the right diagonal front.

m. 88: slow *développé* to the front (through *passé*) then to the back and the side.

Dancer D:

She is the only one who responds to the two repeating a-themes in the second violin (mm. 77-78 and 79-80) by choosing very similar motion (stepping in 3/4 and facing stage left). Besides, she actually shows the phrase ending (of the violins) in m. 84: a turn with a pushing motion of the right arm.

mm. 85-87: Dancer D slowly walks upstage stopping slightly before m. 88. Then she continues walking upstage two more steps and in m. 89 turns sharply to the right (continues the walking steps).

Dancer E:

First a-theme (mm. 77-78): running in a circle in 3/4 (one quarter for each step).

She then repeats the a-theme (79-80): In m.79 Dancer E starts the footwork from the beginning on beat “2.”

In contrast to section a, Dancer E is now facing upstage, however, she executes the exact same steps from the beginning, so that it is a nice closure of the overall A-Part.

She stops the footwork in m. 86 and stands still until m. 88: she slowly raises her arms and performs an *élevé* turning around and facing the audience again.

Why does almost nobody respond to the phrase end in measure 84? The violin part does not seem to be crucial, however, the continuing cello (A-G#) motion is. There is an ambiguity in the music concerning phrase endings, they are “overlapping”.

B-PART

The middle B-Part contrasts with the A-Part in many ways: the timbre is different (mutes are used), the tempo is much slower, and both metrical and harmonic structure are highly ambiguous.

It is challenging to describe the intention of the dance movement in those extremely slow sections.

Section e (mm. 89-98)

Section e can be divided into two phrases: mm. 89-93 and mm. 94-98. The first phrase presents a new theme: Although the section is notated in the key of B-flat major (or G minor) the main theme in the cello (Lento-theme) seems to be in D minor. VI1 does not play in the first part; vl2 and vla start off with the beginning of the b-theme, which then develops using a lot of chromaticism. Interestingly, the viola sounds *above* vl2 – together they move in parallel major thirds until m. 93. Note mm. 90-93 (in vl2 and vla): The global time signature is 3/4, but locally the phrasing slurs give the sense of three bars of 2/4 (i.e., one bar of 3/2). VI1 enters in the transition bar to the second phrase (m. 94). The viola now restates the first three measures of the Lento-theme as a transposed repeat from mm. 95-97. Dancers will respond to the arpeggiated E-flat chord in vl1 in m. 98, which leads to section f.

Dancers' responses:

Dancer A:

He talks about why he does not succeed in executing the dance movement (three reasons: tights, potassium, and space).

Dancer B:

She slowly gets up to a sitting position and faces stage left. Dancer B looks as if she would just have woken up, and as if she would be blinded by the light. She turns around in m. 92 on the third quarter. In m. 94 she gets up with the rising line and starts walking to the beat of the eighth notes, while repeating the arm motion from before.

What is the perceived time signature?

Dancer C:

She repeats the same leg movement three times: *développé*, *enveloppé* (front, side) with three steps in between.

1.: she starts in m. 89 a little bit before the downbeat,

2.: on the downbeat of m. 90 (long note),

3.: on beat "2" of m. 91 (another long note).

Now she executes a quicker *développé* to the front starting on beat "2" of m. 92 (long note).

With an accented arm motion she clearly indicates the downbeat in m. 93. Again, she hears the long note (beat "2" and "3" in m. 93) as important and acts out a slow motion with the right arm.

In m. 94 (on the B-natural in vl1) we see a quick turn.

The last eighth note (viola's "upbeat" to m. 95) leads into the theme in m. 95, and here Dancer C looks like a conductor. She clearly shows the downbeat of this next section with a circling downwards motion of the arms.

It could be that she responds to the actual 3/4 time signature.

Dancer D:

She executes four steps to stage right in mm. 89-90. Antimetrical?

On the downbeat of m. 91: change of direction, subtle legwork, leaning to the right on "2+" and "3."

On the downbeat of m. 92: quick change of direction to stage left, running.

On the last eighth note in m. 92 (probably in anticipation of m. 93): she picks up her left foot.

m. 93 beat "2" (long note, ending note): accented shift to stage right.

On beat "1" of m. 94: she moves her leg to the side, places the foot down on the entrance of the viola's D.

Obvious response to the chromatic line in vl1 (m. 94): on the B-flat (why there?) she falls to the left supported by an arm circle - this motion leads to the new phrase: on the downbeat of m. 95, she stands upright again facing upstage (like at the beginning of the B-Part).

Repetition of the same movement (**the arm reaches its highest point on the high note G**) which makes her facing downstage on the downbeat of m. 96. Dancer D slowly takes up her arms on beat "3", so that they are both up on the downbeat of m. 97. Here she starts touching an "imaginary wall" in front of her. (Left on first eighth note of m. 97, right on second

eighth, left on long note; however, there is no apparent rhythm. She accelerates the movement.)

Clear accent on the downbeat of m. 95: her body collapses at the beginning of the rising line, which could indicate the recognition of the repeating Lento-theme; however, she gets up again immediately, supported by moving her arm upwards.

Dancer E:

Her movement is very slow and stretched.

She collapses on the downbeat of m. 91 and on beat “3” which probably implies a perception of 3/2 (see the phrasing slurs from mm. 91 to 98!)

m. 94: She executes a rising motion in response to vl 1 playing the “rising” arpeggiated chord.

Phrase perception: 6 + 4 (with upbeat).

m. 95: second phrase starts. The motion is more “animated” - walking on the eighth note beat in 3 [?]. There is a sudden change of movement quality on the third eighth note in m. 95.

m. 98: again a nice response to the rising line with a *développé* to the side.

How do the dancers count? Which line is more prominent for them in such a slow tempo?

Section f (mm. 99- 103)

In section f, Ravel switches to a 6/8 time signature, and all instruments seem to adhere to the compound meter. The most obvious “musical event” is the major third tremolo in vl2. A descending fifth progression in m. 99 (repeated in m.

100) leads to a dominant chord (F major) in m. 101 which actually resolves to the expected B-flat major tonic. The motivic work in this section results in a slightly prolonged musical sentence (e.g. in a ratio of 1:1:3).

Dancers' responses:

Dancer A:

In m. 99 he still talks: "watch section TWO" (obvious recognition of the B-Part as another section)

m. 100: He runs upstage and prepares "you'll love it – hopefully."

m. 100: He starts dancing again and counts in 6/8 as stated in the new time signature. His movement is rather fast and opposing the longing/slow character of the music. Dancer A could respond to the quick tremolo in vl2. On the D quarter note (m. 100) he *dégagés* to the front, changes the position of his feet on the next eighth note, and then jumps forward on each of the following three-eighths notes.

m. 101: He changes the movement on the downbeat (a turn). Second half of the measure: finishes the movement on the cello's B-flat and then nicely responds to the syncopation on the fifth eighth with a *soutenu*.

m. 102: in fifth position

on beat "1": he reaches his right arm out;

on beat "2": he now reaches out his left arm and forms a 'V-position' with both arms. **Dancer A keeps reaching most likely in response to the crescendo.**

Dancer B:

m. 99: On the first half of this measure, Dancer B starts reaching up her right arm, while she executes stumbling (sliding) steps to the stage right diagonal on the second half (on beats “4-5-6”) of this measure. (Those steps are not exactly matching the beat.)

M. 100 represents a varied repetition as we find it in the music. Now both arms are reaching up, and Dancer B repeats the stumbling steps again on the second half of the measure. She could possibly recognize the 6/8 time signature.

m. 102: still reaching, one more step on beat “3”; she then holds this position until the end of m. 103.

Interesting detail: on the second half of measure 103 (chromatic motion to the A in the cello) she slightly lowers her arms which could be a response to the sinking pitch.

Dancer C:

She recognizes the time signature change to 6/8 and responds to it.

m. 99: On beat “1” she changes her focus (also with body) from stage left to right, and then walks on beat “5” and “6”

m. 100: Dancer C repeats the movement (as the music repeats the motif) – she is slightly off with the steps, but manages to have a clear “1” on

m. 101 where she starts with the same pose as before but accelerates the movement considerably (*enveloppé* with a turn (on “3”), jumping to the front (on “4”), landing cross-legged (on “5”), followed by a backwards role (on “6”)

She is landing on beat “1” of m 102: her head is up, she pushes back on “2”, her left leg moves up (back) on “3”, and her right leg moves to the front on “6” (why on “6”?)

m. 103: She starts running stage left on the downbeat, on “4”: *dégagé* to the back (on the cello’s A).

Dancer D:

m. 99: first half: She is touching the imaginary wall two times [?],

second half: pretends to move the wall away, and steps to the front

m. 100: first half: stares at audience,

second half: starts running front to the next wall which she touches already on “5” and “6” (three times)

m. 101: Dancer D starts moving to stage left, touching the wall on every eighth note;

Interesting: she accelerates the movement on “6+” and, thus, creates a syncopation for the next two beats of m. 102, where she holds still for a moment and then continues on “4”.

m. 103 (downbeat): it seems as if she would be tired of touching walls and simply starts walking to the left on “1,2,3”.

Obvious response to the falling A in the cello: suddenly falling down/bouncing down and then back in order to lean backwards.

Dancer E:

m. 99: She counts in two (6/8):

on the first three eighths: (turning) *pas de valse*,

on the next three eighths: steps on *demi pointe* (on each eighth note: the left foot is front, the right foot is quickly closing; however she is not equally dividing the eighth notes: a dotted rhythm is created).

m. 100: Dancer E now responds to the eighth note rest and starts the next *pas de valse* (a complete one) on the second eighth note;

The tremolo in vl2 probably leads to a faster motion.

m. 101: New movement quality (no more tremolo, pp): slow *développé* to the back *arabesque* with arms in third *arabesque*.

m. 102: on the second eighth note: the leg goes down;

on beat “2”: facing upstage, starts turning to the back stage left diagonal on the beat of the eighth notes.

m. 103: stops turning,

Nice response to the crescendo: on the second half of the measure (cello’s A), she turns her head to the audience.

The most obvious musical event happens in m. 103 (second half, cello’s A): **every dancer responds to this falling line, mainly with a downward motion.**

Section B2 (mm. 104-110)

From m. 104 on, the meter is ambiguous: although notated in 3/4, it could still be perceived in 6/8 (due to the syncopation in vl2 and vla). Again, this section consists of two phrases: The b-theme returns from mm. 104 to 106 in the first violin and from mm. 108-110 in the viola. Furthermore, pizzicato is used again in vl1, which reminds the choreographers of the a-theme. Dancers respond to the *rallentando* in m. 110.

Dancers' responses:

Dancer A:

Assumably Dancer A responds to the 3/4 time signature:

m. 104: response to the triplet (moves with the rhythm).

m. 105: clear perception of downbeat: downwards motion, handstand on beat "3".

m. 106: could be identified as 6/8, because he moves his hands on "2+", "3", and "3+" (which could be the "4-5-6" in the 6/8). In the music, the eighth notes in *vi2* and *vi4* stand out though.

m. 107: No clear repetition of the material can be seen, but Dancer A definitely recognizes a new phrase. On "3": he starts running to the back.

m. 108: still running, on "3": little jump (why on beat "3" both times?).

m. 109: He starts a turn on the downbeat.

m. 110: nice response to the *rallentando*. On the quarter notes: right arm reaches to stage right on the downbeat, left arm to the left on "2" and right arm again on "3".

Dancer B:

mm. 104-106: slowly lowers her arms.

mm. 107-110: starts new movement: slowly lifting her left arm, looking for something and starting turning. This shows that she hears the two phrases.

Dancer C:

m. 104: next *arabesque* back (with arm pulling in opposite direction) on beat "1" and "2". On "3" (triplet) she starts turning fast until beat "2" of m.

105, where she focuses stage left diagonal (almost kneeling down, right arm straight, as if pointing). Now she gets up on beat “3”.

m. 106: She walks in the rhythm of the ascending eighth notes; on beat “3” she hits a new position (*lunge* to stage right).

mm. 106-109: moves her arms in (more or less) 3/4.

m. 110: clear representation of the three quarter notes (three times arm up - third time in double tempo).

Dancer D:

m. 104: leaning back on the downbeat, on beat “2” she walks backwards (resulting from the leaning), on “3” (triplets) she collapses down

m. 105: walking forward on eighth notes: she hears the syncopation of v12 and v1a; now she collapses on “2+”, gets back up on “3”, and then walks forward.

m. 106: on beat “1”: collapsing down, back up, starts walking on “2+”, “3” and “3+” (like Dancer A)

m. 107: (repetition of the b-theme) she starts the “touching an imaginary wall” motif again

m. 109: she walks “in front of the wall”, and keeps walking forward, while facing the audience.

Dancer E:

m. 104: She turns to the diagonal stage left. The first two beats are interpreted in 16th notes; on beat “3” - when the triplet happens - her feet match the triplet exactly.

m. 105: She stops, lowers her feed, turns her head to stage right, (downbeat, thus, she might hear this passage in 3/4), and starts walking on “3”.

m. 106: walks in a circle on the beat of the eighth notes; at the end, she prepares for the next phrase.

m. 107: movement gets slightly faster (maybe as a reaction to the pizzicato?); a sudden accent happens on beat “3” where her arms are stretched out in a ‘V-position’ to the back. Then she executes a small leap.

m. 108: she is lying down on the floor on the downbeat, on “3”: sitting up, supported by her arms moving through a fifth position.

(Like Dancer A: why on three both times?)

m. 109: On the downbeat she turns stage left on the floor, gets up, and moves her right leg into a tilt-position which reaches its highpoint on the downbeat of m. 110.

m. 110: On beat “2” she executes a turn with accented arms up, followed by a run to stage right in order to prepare for the next section.

All dancers respond to the two phrases in one or the other way.

Section B3 (mm. 111- 114)

What stands out on this section is the time signature change from 3/4 to 4/4 in each measure, as well as the alternation of *pressez* and *a tempo*. Mm. 113-114 are a repeat of the two previous measures. Moreover, the pizzicato chords on beat “3” of the 4/4 measures stand out, as they evoke a memory of the

a-theme. The section sounds more “animated” due to the tremolo-like 32nd accompaniment in vl2 and vla.

Dancers’ responses:

Dancer A:

His tempo speeds up, probably as a reaction to the 32nd note accompaniment in vl2 and vla.

m. 111: *rond de jambe* with the right leg on “1”, starts running in a circle on the triplets (beat “3”).

m. 112: The time signature changes to 4/4: He might intend to stop on the downbeat, turns his back to the audience and executes a *dégagé* to the left on “2”. On beat “3” (the pizzicato chord), he stretches out his right arm to the right and pulls it back in on “4”.

m. 113: starts running again on the downbeat, stops with an *enveloppé* of the arm on “3” (faces upstage again).

m. 114: both leg and arm are stretched out to the left. On beat “2” the right arm reaches. There is a small (and late) reaction to the pizzicato: curving of the arms. Now, on beat “4”, he collapses (drops the right arm), breathes out loudly, turns around and prepares for an *arabesque* leap.

Dancer B:

In m. 111 Dancer B starts crawling to stage left, as if looking for something. She gets lower and is almost lying down. On the pizzicato in m. 112 she suddenly turns around over the back. The next phrase starts in m. 113 and she now crawls to the right. Now, in m. 113 she does not react

to the pizzicato as precisely: she just sits back on her knees, but without any accent in her motion.

Remark: In the recording the string quartet does indeed not emphasize the second pizzicato chord in m. 114. The first one in m. 112 is played almost *f*, the second one, however, disappears more into the 32nd sound. Maybe this is why Dancer B and Dancer A did not react to the second pizzicato in such a strong way as to the first one. In the music both pizzicatos are marked to be played *mf*, though.

Dancer C:

m. 111: On the downbeat she turns quickly with her left leg in *attitude*, and then runs to the stage right diagonal, on beat “3”: another turn, this time followed by the left arm moving around in a circle.

m. 112: She recognizes the new downbeat: Her feet are in preparation position, the upper body is lowered. While facing that front diagonal, she moves backwards on beat “1” and “2”. She reacts nicely to the pizzicato chord on “3”: fast *dégagé* with the right leg, at the same time the right arm stretches to the side, accompanied by the head looking back to the stage right diagonal front. She continues running backwards. Dancer C then repeats this same movement on “4+”.

m. 113: on the new downbeat of the 3/4 measure, she stops the running abruptly (she is slightly behind the music), interlaces her fingers behind her back facing the back left diagonal, collapses down and starts moving her buttocks side to side on beat “3” (triplets) supported by arched feet.

m. 114: On beat “1” and “2” Dancer C continues moving her buttocks (left, right). On the pizzicato on beat “3” she lets go of the interlacing fingers and brings her arms forward. This is a nice reaction to the pizzicato and creates an “accent”. On “4” she slowly lowers her arms.

Dancer D:

She is facing stage left.

m. 111: She lifts her right arm on beat "1", then brings her right hand close to her face and bends her left leg on "2". She then brings up her left arm in front of her face on the first eighth note of beat "3" (triplets). Now her response to this triplet is slightly late: she moves back with her arms (still in front of her face) moving from side to side.

m. 112: On the new downbeat she steps forward and opens her arms out to the side. On the pizzicato on beat "3", she suddenly lifts her right arm and her left leg. She now collapses down, turns and swings her arm back up, which brings her back to a standing position with the right arm up for a moment, then dropping it on her head (creating a 90 degree angle).

m. 113: It is unclear if she recognizes the new downbeat and the meter change; she simply stands still (there is just a slight noticeable weight shift) on beat "1" and "2". On beat "3" she starts moving her right leg forward.

m. 114: Dancer D places her left leg down behind her, so that she is in a *lunge* position on the downbeat. On beat "2" she bends forward and "throws" her right arm to the front (away from the crossed position on the head) followed by her upper body and head on the pizzicato on beat "3". On beat "4" she shifts her weight back and leans backwards with her arms up in a 'V-position'. On "4+" she returns to the "arms in front of face" position, and then lowers them.

Dancer E:

There is a nice response to the meter change as well as the accented pizzicato chords:

m. 111: (she is facing the stage right back diagonal) *développé* to the front, on “2”: pulling the leg back into a *plié* in forth position, arm goes up, on “3” (triplets): turning to face front in second position, collapsing down, then quick slight movement from side to side (as reverberating to the triplets).

m. 112: On the downbeat she turns, then starts running and prepares for a leap with the left leg in *passé* on “3” (the pizzicato chord). The arms sharply move to the corner she came from in ‘V-position’, also the head sharply turns to this stage right side (nice representation of this pizzicato). On beat “4” she executes a slow *pirouette*.

m. 113: Here she repeats (almost) the same movement as in m. 111 → recognition of the repeating phrase. On the downbeat of m. 114: *pirouette* with a leap, then she falls down on “2” and is fully stretched out on the floor on beat “3”- she holds still.

Was the falling-down intended to happen on the pizzicato? It still makes sense that the musical accent is happening when she holds still for a second. On beat “4” she curls together and prepares to sit up.

Dancers show a clear response to the pizzicato chords. Most of the dancers also perceive the alternation of time signature from 3/4 to 4/4.

Section A2 (mm. 115-119)

This section re-introduces the pizzicato a-theme (in *stretto*); the b-arco-theme, however, is only restated once (m. 116 in viola). The first a-pizzicato-theme in m. 115 (cello) is played in *pp*, and is thus difficult to hear. The time signature is 3/4, but each measure features a tempo change from *rallentando* to a *tempo*, like in the previous section.

Dancers' responses:

Dancer A:

A *temps levé* in *arabesque* is followed by a *pas de chat* to stage left, which starts approximately on "1+" of m. 115, and is repeated to the other side exactly when the cello plays the fifth (C-G). The *pas de chat* is on the downbeat of 116. Thus, **the pizzicato is associated with a jump.**

In m. 116 Dancer A responds to the b-theme. The movement slows down slightly (a turn and then an *arabesque* to stage left).

On the downbeat of m. 117, he repeats the *arabesque*, then stops, coughs, and takes a short break, placing his hands on his knees and bowing down.

On the downbeat of m. 118, he faces stage right, starts jumping (double hitch kick in *double attitude*) and lands on beat "2". He steps twice in response to the a-theme in vl2 and performs a quick *double pirouette* on the a-theme in vl1 (beat "3"). As yet another response to the a-theme in vl.2, he executes another hop (backwards) on the downbeat of m. 119.

Now, interestingly, he possibly considers the *mf* arco F-sharp half note in the cello (beat "2" of m. 119) as more prominent than the repeating pizzicato motif in vl1: he moves his arms to second position leaning to stage left instead of executing more jumps. Then, Dancer A puts his arms to his sides, breathing heavily again and turns towards upstage.

Dancer B:

Dancer B is kneeling and turns her body to stage right while she is looking up. She is reaching upwards with her arms, having reached the highest point on beat "2" of m. 115. Now she reaches downwards and pulls the

arms slightly towards her on the cello's C (after beat "3") and back up on the downbeat of m. 116.

m. 116: She does not make a difference in movement when the b-theme is heard; she responds rhythmically: arms up on the downbeat as described before, then down on "2": when the triplets are played, she slowly spreads arms and fingers and reaches to both sides (slower and more intense than before).

On beat "2" of m. 118, she changes the direction and starts moving back down as well as leaning more to stage left. She then touches the floor and "falls back" on approximately beat "3" of m. 119 while she is still looking at the same spot on the ceiling.

Dancer C:

She starts with a backwards turn initiated from a backwards *arabesque* not exactly on the downbeat of m. 115 (might have been intended to begin there, however). Then she repeats this back-turn with the other leg exactly on the cello-fifth (after beat "3").

m. 116: reacts to the b-theme a little late, on beat "2", with a fluid motion.

m. 117: On the downbeat she starts walking backwards (back towards the audience, facing upstage).

Exactly in m. 118, after the a-theme already appeared for five times, she repeats the exact arm motion from the beginning – her pizzicato motif – (section a'): touching an imaginary wall in front of her (in the rhythm of the eighth notes).

Again on the downbeat of m. 118, she stops this motion, turns to the stage left diagonal and starts walking towards this corner.

As an “upbeat” (or intro) to the new section she starts quick movement approximately on beat “3” of m. 119 in order to lead into m. 120 and following.

Dancer D:

She lowers her arms, steps back on beat “1” and lets her right arm collapse on her head as a response to the a-theme on beat “2”. Again, the fifth in the cello is of importance: C (nothing), G: leg up in a *passé* to the front; G (downbeat of m. 116): leg down again, followed by a *rond de jambe*.

m. 116: response to the b-theme with slow turns moving downwards. The arms are spread out.

m. 117: Body and arms rise shortly before she triples backwards, sliding to the floor. For a moment she holds still.

m. 118: On beat “1” (a-theme in vl1) she executes a big circle of the right arm while kneeling on the left leg, right leg stretched out. Followed by another set of quick movements starting on beat “3”; the dancer slides down to the floor again when the cello plays the *mf* F-sharp in m. 119.

Dancer E:

She slowly sits up/curls up and moves her arms into second position. In m. 115 she responds to the pizzicato motif by rhythmically moving/pressing her arms slightly down and back up (what we have seen already in section c, before the beginning theme is repeated).

m. 116: response to b-theme: on beat “1” and “2”: *alongé* of the arms (left arm higher than right). Turning around over the back on the triplets.

m. 117: On the downbeat she gets up facing the stage right diagonal, lifting the arm as if reaching for something.

m. 118: She walks backwards on the a-theme in vl1 (one step on each eighth), stops on beat "2" (a-theme in vl2), and then turns around on "3" (a-theme in vl1).

m. 119: On each quarter (each new entrance of pizzicato motif) she takes one step backwards (*rond de jambe* backwards with opposite arms), walking towards stage right facing left.

Measure 115, after beat "3" (the cello fifth) seems to be of importance to most of the dancers.

Section e' (mm. 120- 128)

In section e' the Lento-theme returns first in vl1, doubled in octaves, and then again in mm. 124-126 (now in just the high octave), dividing the section in two parts. From m. 120-123 vl2 plays the a-theme (*quazi arpa*) in broken chords against the Lento-theme, while the cello holds the pedal note F. Since the tempo is so slow, the a-theme is almost not recognizable. Tempo: Alla breve (2/2), half note= 30.

From m. 124 on, the time signature changes back to 3/4 (with quarter note=46). Ravel now states a dominant expansion which takes place until m. 139 preparing for the return of the A'-Part.

Measure 127 is an "echo" of m.126 (repeated in vl2) while m. 128 can be described as a "connecting measure." Vl1 repeats the notes D and E again, leading to the next section. In the second part, the cello continually states the a-theme, slowly reducing it to only a fifth (E-B) in mm. 126-128.

Dancers' responses:

Dancer A:

He stops dancing and starts talking ("water break"). Interestingly, from measure 124 on, Dancer A suddenly gets excited, probably in response to the "moving" a-theme in the cello. He says: "Oh no, I think, someone is tricking me, they glued the water shut!" Then he starts running to the right stage wing, trying to open his other bottles.

Dancer B:

In the first section (mm. 120-123), she crawls to stage left, and sits up with her legs tucked in and her head on her knees in m. 123.

When the section repeats, and the cello states the animated a-theme, she "flutters" her hands as if to scare away a fly.

In m. 127, on the echo, she lifts her head on the B-natural.

Dancer C:

Dancer C starts with a *développé* to the back, leaning her upper body forward on the downbeat of m. 120, followed by two quick turns.

Downbeat of m. 121: Her back leg is extended again, this time in *dégagé* to the back. She is standing still for a moment before preparing for the downbeat of m. 122 with a *rond de jambe en l'air*.

m. 122: Downbeat: Downwards circle of the upper body.

Quick movements follow.

It seems as if she would start too early with her walking/rocking steps while kneeling. They might have been intended to start in m. 124 instead

of in the middle of m. 123. [?] Unclear movement intentions in the rest of this section.

Dancer D:

On the downbeat of m. 120, she finishes the leg movement. On the D (beat “3+”) - the highest note of the phrase - , she sits up and reaches her arms forward.

m. 121: Downbeat: Circle of the right arm, facing front stage right diagonal. Now she responds to the repeating Ds with rhythmically corresponding arm motion.

m. 122: She starts to stand up and is fully upright on beat “4” .

m. 123: Interestingly she decides to do a slow *pirouette* on the long D (counter action to music). Then she executes a reaching arm motion (half-circle, facing upstage).

m. 124: She responds to the cello a-theme, but *after* she heard it with little steps. (Dancer D might have been improvising from here or maybe earlier on.)

She moves in a half circle, stops in between and then keeps walking.

No apparent intention or interesting response to the music.

Dancer E:

Dancer E continues walking back in *rond de jamba*s with her arms in opposite direction. She changes the direction to the front (stage left) on beat “3+” (D): one step; beat “4+”: next step.

In m. 121 she suddenly starts running to the back left diagonal: two steps are followed by a *grand jeté en avant* (jump) and a turn. She repeats the same combination slightly faster on beat “3+” (D).

On the downbeat of m. 122, the same combination is repeated once more; this time sideways, facing the audience - three *glissades* are added before. She ends in a *croisé* position. (Nice recognition of the phrase ending.)

Dancer E probably responds to the a-theme → hence the leaps.

The new phrase starts with the more agitated mood created by the cello, and accordingly her movement becomes more agitated as well:

Facing the upstage left diagonal, she starts with a *relevé* in second position (*bras bas*) followed by quick *courus* to the front (right leg in front). The movement is repeated exactly after beat "3": on the second eighth note of the triplet: left leg; on the third eighth: right leg is put in *relevé* in second position. *Courus* start on the downbeat of m. 125. The *relevé* is repeated; now there is a new movement on each fifth of the cello.

→ It seems that mm.124-126 are heard in 3 x 2/4, thus in 3/2, rather than in 3/4!

m. 127: New motion on the downbeat (sliding hop forward, arms going up and back down like a wave). Repeated in m. 128.

The cello a-theme in m.124 (and following) is of importance.

Section re-transition (mm. 129-149)

The re-transition section consists of twenty-one measures leading to the A'-Part. Tonality as well as meter is clear again: We are back in A minor, and back to the time signature from the beginning of the movement: 6/8 (3/4). Furthermore, Ravel establishes the quicker *1er tempo*. By measure 130, all instruments have removed the damper.

In mm. 129-130 the cello alternates between the notes E and F, followed by a chromatic line upwards (from E to E) in mm. 131-132. In the next three measures (mm. 133-136) the viola repeats the previous four measures of the cello. Then vl1 plays the a-theme using only fifths (m. 134). VI2 now repeats mm. 129-132 of the cello, but varied: there is one bar less of E-F alternation, and the chromatic line only moves up from E to F-sharp and then back down to G-sharp. VI1 repeats the a-theme-fifths. In mm. 140-142 vl2 plays a varied sequence of mm. 137-139; starting on G-sharp, while vl1 states the a-theme-fifths (now G-sharp - D-sharp). V1 drops out in mm. 144-145, and vla imitates m. 143 of vl1 and consequently drops out in m. 145. The section's last five measures mm. 145-149 present a "crescendo" in dynamics, density, range, and harmonic rhythm.

Dancers' responses:

Dancer A:

He stands still with the water bottle in his hand, starts running when the chromatic rising line in the cello starts, executes another double hitch-kick jump on the downbeat of m. 133.

m. 134, downbeat: quick *rond de jambe en l'air* with the right leg.

Dancer A recognizes the next downbeat of m. 135 (another leap straight up in the air also with arms up), and he responds to the chromatic line in mm. 135-136: as if being pushed back and forth by the wind (elastic).

m. 137 is a preparation for the leap on the downbeat of m. 138.

Interesting: The chromatic line goes down in mm. 138-139 and he moves backwards (sliding steps).

In m. 140 he walks forward again and prepares for a leap (side-kick) on the downbeat of m. 141. “Oh, just one little drop, please little water bottle...” - he says while dancing. The leap is followed by a quick pirouette, “I am really thirsty...”

His foot is clearly placed down on the downbeat of m. 143, “...and they expect me...” he says while moving back. In m. 144 he executes a slower pirouette, “...to do real real good.”

mm. 146-149: Dancer A starts running to stage right again, followed by some leaps back to the center.

Dancer A obviously picks up the exciting, climatic mood of the music; the hectic is reflected in his dance. It is also the first time that he talks and dances at the same time.

Dancer B:

Dancer B starts leaning more backwards in mm. 134-136. Her arm slides out in m. 133. There is a sudden motion of the upper body in m. 135 (downbeat). Then she is sitting up on her knees with the arms crossed on her thighs (approximately on downbeat of m. 137).

m. 140: suddenly she gets up, stands still and brings her arms towards her. It looks like a robot-motion.

mm. 143-144: short abrupt motion.

mm. 144-149: Dancer B turns around, walks slightly to center stage with her hand at her heart, standing still, looking down.

Her movement is rather angular and choppy. In this section, Dancer B responds to the music in an opposing way: she stands more or less still, while the music gets very excited.

Dancer C:

She is sitting on the floor with spread out legs while facing the left front diagonal. Now she starts repeating the same hand movement from the beginning which she used for the a-theme: “touching an imaginary wall in front of her” from mm. 129-133 in response to the a-theme-fifths. On the fourth eighth note (beat “2”) of m. 133, she suddenly holds still (right arm up in a triangle). Unclear rhythmic intentions. It might be that Dancer C follows an internal rhythm, or maybe she just has practiced a movement pattern and puts it “onto” the music as it comes.

She starts moving again on the downbeat of m. 135 and repeats the hand movement. This downbeat seems to be more important, probably because m. 134 (vl1) happens rather unexpected, so the next chance to react to the just heard material is on the downbeat of the next measure [?].

Downbeat of m. 138: she suddenly bows down. She repeats this “pushing” bowing-down in m. 139, and then starts the hand movement again on the downbeat of m. 140. (Thus, this motif is not necessarily connected to a certain motif in the music.)

Dancer C executes a backwards roll on approximately m. 142, and gets up on the downbeat of m. 143. She is completely up in m. 144 and now starts a sequence of very fast movement of turns and leaps, probably reacting to this immediate transition back to the A-Part.

Dancer D:

mm. 129-133: She walks in `zick-zack`.

Interestingly, it is again the downbeat of m. 135 which shows a clear response: In m. 134 Dancer D has started to turn and then she collapses down, clapping her hands on the ground exactly on that downbeat of m. 135.

In m. 135, while the cello's chromatic ascending line is heard, she rolls back into a shoulder stand, rolls back to the front, and is sitting up on the downbeat of m. 137 (vl1). Now she claps her hands on the floor again, probably on beat "3" of m. 138.

Dancer D rolls over, sits up (exactly on the downbeat of m. 140) and claps her hands down on the floor - again on beat "3" of m. 140. (Does she actually count in three?) Then she rolls over once more, and this time sits up with her right arm straight up on (approximately) the downbeat of m. 142.

She clearly responds to vl1 in m. 143: both quarters get an action with the arm (1: swing left, 2: swing right), and accordingly, there is a response to the vla in m. 144 (beat 1: left leg swings to the left, 2: left leg swings back). In m. 145 she repeats this exact same move with the right leg.

The musical intensification in mm. 145-149 is used in order to get back to the ground to the exact same position as in the very beginning.

Dancer E:

Four *échappés en tournant* (on the floor) are performed in mm. 129-130. When the chromatic line starts, she holds still for a second, and then starts an intriguing jump combination (very quick and precise). The next chromatic line starts in m. 135, and Dancer E begins moving stage left, with a *pas de valse en tournant*, continuing with more *pas de valse en tournant* and leaps (e.g. *grand jetés*). She dances in a big circle.

Interestingly, from m. 144 on, she stops dancing in a circle and instead executes quick jumps and runs on the diagonal to the stage left front (no more turns).

Dancer E recognizes repeating phrases and the exact beginning of the musical the "building-up."

A´ - PART

Section a´´ (mm. 150-161)

Section a´´ is a repeat of section a´: both have the same length as well as exactly the same thematic material. Section a´´ is thicker in texture. The only evident difference occurs in m. 49 and in m. 159: instead of a scale, vl1 now plays triplets for the first two quarter notes of its ascent to the high E (E6).

Dancers´ responses:

Dancer A:

He clearly responds to 3/4: he turns in m. 150, and then hops three times in a circle in m. 151.

mm. 152-153 *could* also be perceived in 3/2

From mm. 154-160 he runs around in a circle, and then responds again to the two eighth notes in m. 161:

beat "1": He stops running and his arms suddenly go down (on the *downbeat*),

beat "1+": *ouvert* position, arms move up into a third position.

Dancer B:

Although the music is repeated, and although the character is quite engaging and lively, Dancer B decides to stand still during this whole section. She is looking to the floor and lowering her right arm extremely

slowly. Only on the second eighth note of m. 161 she looks up and lowers both of her arms completely.

Dancer C:

Dancer C might perceive units of two measures (is she counting in 3/2?):

The downbeat of m. 150 is indicated by a turn to the right (with the arm leading).

On the downbeat of m. 152 she turns to the left (with an *enveloppé* with the right leg, and the arms).

Now we see a movement response to m. 153 beat "2". This would be beat "3" if the passage would be counted in 3/2.

Respectively she executes a big leap in m. 155 on beat "2" (another "3" in 3/2). [Is beat "3" of a 3/2 in this section heard as a new downbeat?]

m. 156 seems to be counted in three quarters with a leap to prepare the run on beat "3".

mm. 157-160: She starts running towards the front stage right wing and jumps 'into' the wing (where her friend is catching her, which the audience cannot see).

This ending might have been performed a little too early.

Dancer D:

Most likely Dancer D repeats the exact same movement from the beginning. (Since the video recording was blurry, I can only back up this statement from my memory of the performance day.) Thus, we see a literal repeat in the music as well as in the dancer's movement choice.

She is lying on her back, her arms spread out on the floor, her legs are together and pulled up to the chest. Dancer D probably has the passage in 3/4:

m. 150: "1": The right leg stretches straight up and back to the chest.

"2": She performs the same movement with the left leg.

"3": Both legs are brought back together.

m. 151: "1": both legs move to a triangle shape,

"2": both legs straight together,

"3": legs down.

As mm. 152-153 are a repetition in the music, so is her movement a repeat of the preceding two measures.

In mm. 154-155, interestingly, she switches to 3/2. The right leg goes out to the side on the downbeat of m. 154, and then the left leg goes out on beat "3" of m. 154. Now she bends both legs (also in a triangular shape) on beat "2" of m. 154.

In mm. 156 and 157, she changes the direction of the triangular legs first to the right, then to the left again. The perception of meter is not clear here.

Then, Dancer D slowly rolls over to stage left and faces the audience. She is stretching out her right arm in order to pull it in with an accent on the second eighth note of m. 160. Now, she turns back to stage right, sits up and faces the stage right front diagonal.

Dancer D responds to the first and second eighth note in m. 161. First, the right arm covers her head, then the left arm (forming another triangular

shape). Also the feet follow those two accented eighth notes: the right leg is put into position on the first eighth note, the left leg on the second one.

Dancer E:

She chooses very different movement than at the beginning of the piece:

The beginning of this section is most likely perceived in 3/4: she executes a step on each quarter of the first two measures (mm. 150-151) and shows the downbeats: m. 150: leap, m. 151: change of direction.

m. 152: pirouette in attitude. Then, a *passé en demi pointe* on beat "2" of 153 – is she counting in 3/2 now?

m. 154 and following *could* be interpreted as a continuation of 3/2.

m. 156: turn on beat "1" which is repeated on "3" (3/2). Then she runs towards the stage left back diagonal and starts a *double pirouette* on beat "2" of m. 159 (when v1 enters with the E triplets). The ending is similar to the one in section a': she responds to the second eighth note of m. 161 (with a sudden turn to the opposite diagonal in attitude).

Section b'' (mm. 162- 178)

This section is a varied repeat of section b. Measures 13-19 are exactly repeated in mm. 162-168. From m. 170 on, Ravel employs the same thematic material, but presents it in a slightly different tonality from that used in mm. 21-29.

Dancers' responses:

Dancer A:

He repeats the exact same movement from section b' in mm. 162-174 (except for the leap on the downbeat of m. 174, which is now performed with higher legs). However, he talks in between "Ok, maybe we just pretend we're doing good. Nobody will notice."

mm. 175-176: now interpreted in 3/2: one long *pirouette*, and then a clear movement change (a leap to the right) on the downbeat of m. 177 (*ff* in v1, B-natural instead of B-flat). Then he pretends to collapse down from tiredness.

Dancer B:

Dancer B chooses very different movement than in sections b or b':

She runs to stage right, bows down on beat "3" of m. 162 and grasps something imaginary. Then she gets up on the downbeat of m. 163 and walks backwards stretching out her arms (as if sprawling in the morning) on the downbeat of m. 165.

Now on beat "1" of m. 166 (when the phrase repeats) she bows down again in order to grab water [?], she is up on beat "1" of m. 167, begins stretching up her arms in m. 166 while turning around herself.

m. 170: She turns with her right leg and executes a short *rond de jambe* (90 degrees). It seems that she reacts to the b-theme in m. 172 (reaches out her arm). In the next measure, where the a-theme is heard, however, she conducts another *rond de jambe* (same one as before, but a little quicker), followed by the same reaching-out-the-arm motion in m. 174.

The next passage is most likely perceived in 3/2: right turn in m. 175 (she starts a little late), and then a left turn in m. 177.

Dancer D:

Dancer D repeats the same movement from section b in mm. 162-174.

In m. 174 she sits up and bows down, then faces the right diagonal in m. 177 and starts her “struggling” movement on the downbeat of m. 177 (3/2 response). However, there is no ascending scale by the cello this time. On beat “3” of m. 177 she sits up turning to center stage, and then goes back to her “struggling” motif for the duration of m. 178.

It seems that she is a little confused not to hear the cello entrance here, maybe this is why she repeats the motif.

Dancer E:

Dancer E dances the same movement as in section b; however, she is now facing the upstage left diagonal. The only difference happens in m. 176 on beat “3”: here she performs a *pirouette* until beat “3” of m. 177 (end).

This passage might be heard in 3/2: on beat “3” of m. 177, Dancer E conducts a *degagé* to the side (the “2”), and on beat “2” of m. 178 (the “3”) we see another movement change, which ends in a second position on *demi pointe*.

Section c'' (mm. 179-186)

Section c is a varied repeat of section c'. VI1 exactly repeats mm. 69-76, while the other strings modify somewhat the underlying harmonies.

Dancers' responses:

Dancer A:

After having collapsed, he gets up on the downbeat of m. 179, starts running in a circle again and throws away his water bottle on the last eighth note of the second cello/viola arpeggiation (m. 182, last viola note F).

In m. 183 he starts talking again: "Ah! Let's go ahead. I'll do the end just for you."

In m. 185 he stops running (center stage), places himself in preparation position **and bows down slightly (which corresponds to the descending chromatic line in vl 1)**. Then he straightens his back (as good as he can, being "all exhausted") and **lifts his arms into second position (this reflects the ascending cello/viola line)**.

Both *down* and *up* can be seen in his movement!

Dancer B:

Dancer B brings her arm back in. She seems to be excited and happy.

On approximately the downbeat of m. 180, she performs two small hops (just bringing her feet back together), which she repeats in m. 182.

Another hop happens after beat "1" of m. 183 followed by two steps (rhythmic intention is unclear here).

On the downbeat of m. 185, she places her right foot in a *dégagé* to the side on the floor, and executes a *demi plié* on beat "2+" (the last quarter, the viola's A flat).

Dancer D:

In mm. 179 until 182 she executes the same movement as in section c, but then changes it in m. 183: here she turns around on the floor and gets up accompanied by a leap from the floor. She is up on the downbeat of m. 185, turns one more time and keeps walking in a circle towards center stage, where she prepares for the next downbeat in m. 189.

Dancer E:

We can see a new movement initiation every time the arpeggiation starts:

m. 179 : slow *pirouette* with a *rond de jambe en l'air*,

m. 181: bringing the left leg into an *arabesque* in *demi pointe*, followed by a turning around leap in m. 182,

m. 183: turn with the right leg sliding over the floor in a *tendu* to the front, and in

m. 185: leaning to center stage in order to walk into the opposite direction in a circle.

Section d' (end) (mm. 187-198)

Mm. 187-190 of the final section d' are an exact repeat of mm. 77-80 (section d). In the following two measures Ravel switches the voices: V1 now plays the a-theme an octave higher (and more recognizably) than it appeared in v12 in mm. 187-188. The viola repeats mm. 187-188 of v11, and the cello continues repeating the same motion from previous measures, now in tremolo. A dramatic crescendo takes place from the *pp* of m. 191 to the *ff* of m. 196. In mm. 193-196, v12 doubles v11 (now yet another octave higher), emphasizing the pizzicato a-theme even more. The theme is then shortened in m. 193 and again

in m. 194; only the middle part (C-D-E) of the a-theme stays and is repeated three times. In m. 196, all voices culminate into an unusual chord in *ff* which can be understood in the following way: it functions as a sort of dominant on E with a flat fifth and a suspended A, in second inversion. It, thus, seems to be a French chord but with a major seventh rather than an augmented sixth, serving as a dominant rather than a predominant; the “indetermination” here creates a tension which is intensified by the following two quarter rests.

The penultimate measure is played pizzicato, *retenu* and *p*; the shortened a-theme (C-D-E) is repeated in v1 and v2 supported by a “Neapolitan B-flat⁹₇ chord,” which happens to have an augmented sixth, which is in fact the leading tone (and hence makes the chord feel like it has dominant function). B-flat could further be interpreted as the leading tone to A from above.

The chord on the second quarter of m. 197 (B flat-E-G sharp-C) has a stronger dominant function and could be interpreted as E^{m13}_{flat 5}, thus the expected dominant chord for A minor. When looking at voice-leading features, the chord can be understood better: G-sharp leads to A; B-flat, as said before is the leading tone from *above*; and E and C could be considered as anticipations of the A minor to come. The pizzicato and *p* setting along with yet another quarter rest on beat “3” creates tension to the expected end. The piece concludes on a *ff* A minor chord: only cello and viola state the chord on the downbeat; v1 and v2 play the A minor chord as quadruple stops on beat “1+” (an obvious reference to the E major chord in section a, mm. 11-12).

Dancers’ responses:

Dancer A:

He hears mm. 187-188 in three times 2/4, thus in 3/2:

“1” and “2”: right arm, then left arm draws in (side)

“3” and “4”: left arm, then right arm stretches out to the front

“5” and “6”: arms move upwards together, and he turns to stage left.

Mm. 189 and 190 are probably perceived as two measures à 3/4:

m. 189: three steps (each on a quarter), then shifting his weight back and forth in parallel position.

m. 190: step to the front on the downbeat, followed by a *rond de jambe*.

When the themes repeats again in m. 191 and following (in vl1), Dancer A starts running in a circle to the stage left center wing and pulls out a bucket full of water, runs backwards with the bucket (mm. 194-195) kneels down in front of it (in m. 197). After the piece ends, he sprinkles water on his face, and then in silence, puts his whole head into the bucket of water.

Dancer B:

She starts prancing around (in quarters [?]) in a circle towards the back wing stage right, and leaps into the wing, probably too early; she most likely intended to leap on the final chord, but now already `disappears` right before the downbeat of m. 193.

Dancer D:

She perceives the downbeat of each of mm. 187 through 190 and performs an inwards circle of the right arm, while her left arm is stretched out to the side. The leg is in *passé*, and she is moving around in a circle. Dancer D might hear 3/4 for four times.

She continues counting in 3/4 and executes a new movement (in continuous motion) in each measure:

m. 191: She curls in, keeps turning around her own axis / pivots;

m. 192: on the downbeat she starts stretching her arms to the front (keeps pivoting)

m. 193: she rises up/ straightens her body

m. 194: her arms intertwine, rise up and move back down (like a wave)

Dancer D now keeps moving and continues intertwining her arms until m. 196, where she responds to the musical highpoint with a sudden sideways fall to the ground, which she continues on the rests. Her head is facing down between her spread-out arms. In m. 197 she holds still. In the rest afterwards, Dancer D starts sitting up and simply raises her head on the *ff* of the last chord. This relatively small movement still appears to be very powerful and majestic in response to this *ff* ending chord.

Dancer E:

She interprets mm. 187 until 190 in 3/4:

m. 187: quick steps (*bourrés*) en *demi pointe* to stage right

m. 188: one turn in three steps to continue moving in the same direction as before

mm. 189, 190: the same quick steps as earlier, until beat “3” of m. 190, where she prepares for the upcoming pirouette-like turns.

This next section is a beautiful response to the up-building character in the music, which leads to the end: Dancer E starts with one *soutenu*, then starts over and executes approximately four *chainés*, then a *pirouette*, then a *soutenu* twice, another *pirouette*, which finally ends with a *sisonne* to the front on the downbeat in m. 196.

The quarter rests in m. 196 are interpreted with movement: Dancer E executes a quick *pas de valse en tournant* (counter-action to the music).

m. 197: a quick *pas de bourré sauté*, which is repeated to the other side again on the rest.

Dancer E clearly responds to the second eighth note of m. 198 with a sudden ending pose.

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