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Gestural Kinesthesia and Conducting: New Methods and Approaches to Teaching and Evaluating Gesture

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Gestural Kinesthesia and Conducting:

New Methods and Approaches to Teaching and Evaluating Gesture

by

Wendy Jo Freeman

A THESIS

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Abstract

Emblematic conducting performance involves the practice of significant non-verbal gestures to convey a musical interpretation that supports a homogeneous relationship of gesture and sound. The complex theories of audiovisual perception and the dynamic relationship that exists between a conductor and an ensemble is a fascinating topic worthy of exploration. New methods and approaches to teaching and evaluating gesture are beneficial and further the technical development of undergraduate conductors. Non-traditional learning sessions designed to improve goal-directed actions and the perceptual understanding of emblems involved the use of motion capture technology and body mind flow exercises.

This investigation compiled data acquired from participant interviews and self-evaluations. Feedback collected from a chamber ensemble and an expert panel helped to validate the usefulness of the pedagogies. Gesture reviews that utilized point-light videos and corresponding sound moments and emblem identification tests helped strengthen each conductor's self-awareness and sonic-object familiarity in an unbiased manner. Emblem practices addressed in training helped the conductors to improve the expressivity and specificity of their gestures. Interaction with motion capture technology, hands-on performance of march-style excerpts and body mind flow exercises raised the contextual focus the conductors applied to their movement executions.

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May you vigorously pursue that which intrigues you and courageously tackle the challenges that arise while passionately sharing the joy this pursuit is sure to bring in an imaginative, yet humble way.

Love,

Mom

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Chapter 1: Introduction

The main purpose of this doctoral research project was to explore the congruency or lack thereof between an ensemble's collective sound production and the conductor's displayed gestural palette. I hypothesize that improvements made to one's emblematic conducting technique will increase the likelihood of ensemble sound precision and expression. Another purpose of this research is to assist undergraduate conductors to expand their expressive and emblematic movement vocabulary during salient musical moments. The findings of this research investigation hope to reveal what factors play a role in the success of the non-verbal communication of emblems and what type of occurrences break down the relationship between these gestures and their corresponding sound moments. The research should also offer clues as to whether emblematic coaching, body mind flow performance exercises and sonic-object point-light reviews increase one's understanding and performance ability of conducting emblems. This knowledge will assist student-conductors to balance the range of functions involved in the act of conducting.

The multifunctional act of emblematic conducting concerns itself with an awareness of performance flow across various dimensions of listening, the employment of significant gestures, artistic interpretation obtained from dissecting intricacies contained within a score and the utilization of auditory perception to express emotion and musicality. It is these interwoven functions of conducting that encourage a homogeneous relationship between gesture and sound. In rehearsal the conductor uses his imagination, raises each musician's audio-visual awareness and raises his own auditory and kinesthetic-motor awareness. Particular attention to the theoretical and philosophical underpinnings embedded in the amalgamated roles of the conductor, teacher and leader, and the flexibility to employ the most appropriate role for the

moment, whether in the classroom or the concert hall offers an appropriate framework for discussion.

A noteworthy neuroscientific advancement brought forth discussion that links ideas concerning the human motor system, elements of social interaction and cognition, understanding of others' actions and their intentions behind them, action simulation, the synchronization of actions and the mapping of sounds into actions; all topics critical to understanding the complex experience that occurs in music performance between a conductor and the members of an ensemble. Instrumental music performance is a social, cognitive and tri-modal (motor, visual, and auditory) or sensorimotor activity involving the ensemble's action sounds and the conductor's actions, both which must be interpreted with temporal accuracy, plasticity and flexibility in order for all performers to be together in musical time. This collective music making experience will hopefully portray a shared representation of musical intent and expression. The ability to understand the actions and feelings of another individual and recreate the observed actions onto the observer's own motor cortex or to map complex sounds into actions are fascinating areas of research that have far reaching musical performance implications.

One primary problem is that there is a lack of research that investigates if auditory musical motion is shaped by forces analogous to those that shape physical motion. Similar to physical gesture, an undergraduate conductor's musical gesture should derive its character in part from the ways in which it moves with respect to musical forces or the present soundscape (Gritten & King, 2006). Conducting pedagogy must confront both auditory and kinesthetic concerns to encourage technical development and strengthen one's gestural awareness and skill perception. One hypothesis is that not all emblematic gestures are equal and the precise execution of an emblem has influence over the type of sound it represents, which is either easily

identified or simply misinterpreted. An emblem is an expressive and specific non-verbal conducting gesture displayed to illustrate and communicate the precise meaning of a musical moment. Regardless of one's practical experience, ambiguous gestures applied to many different sounds or emblems that misrepresent the type of sound desired may occur more frequently than practitioners realize.

Upon methodical review of musical object perception and gestural expression, two hopelessly intertwined functions of conducting, I made a curious and disconcerting observation. There appears to be a large deficit with respect to the manner in which a student-conductor's projected gesture multimodally agrees with an instrumental ensemble's sound production. The modal relationships between observed gestures and sounds do impact the audio-motor perceptions of the conductor and musicians; however there is a lack of substantiated multi-sensory evidence that investigates gesture-sounds utilized for pedagogical conducting performance purposes. This is partially due to the general limitations of various neurological imaging techniques that require a subject to remain still, high implementation costs and the sheer enormity of equipment required to measure larger group responses.

Student-conductors must learn to dissect musical intricacies and instruct using emblematic gestures that represent specific musical moments. Similar to signing, the lexicon of conducting language is its non-verbal gestural vocabulary. This lexicon is commonly understood by musicians and student-conductors, but much more difficult to put into practice. A large portion of a student-conductor's projective mode dominance derives itself from a variety of emblematic (Sousa, 1988), expressive (Byo & Austin, 1994) and encouraging gestures. Research has indicated that those who consciously improve and utilize these types of non-verbal illustrators can inspire more musically expressive performances (Grechesky, 1985). This

coarticulated connection however is often neglected and rarely demonstrated in practice (Price & Chang, 2001 & 2005). Lack of training, limited technical conducting ability and misinterpreted gestural kinesthesia, or the awareness of one's gestural motion while in motion could be three factors that influence this disconnect. An auditory scene analysis deficit (Bregman, 1990) where one is unable to make auditory sense of certain dimensions of listening involved in the perception of a particular soundscape could also explain the lack of congruency between gesture and sound.

1.1 Psychoacoustic Phenomena

Looking at the intricate manner in which humans perceive sound can assist student-conductors to instruct their ensembles to execute acoustic phenomena. It also can assist one's ability to demonstrate emblematic, encouraging and expressive gestures that are connected to the musical soundscape. Student-conductors who understand the basic parameters surrounding psychoacoustic principles are not only better equipped to discern intricate melodies, but they can appreciate the manner in which a composer utilizes musical ideas to construct a work. Student-conductors who explore a small portion of basic psychoacoustic phenomena can enhance the precision and effectiveness of their score study of wind band, choral or orchestral pieces. Simply by applying a number of basic principles of auditory perception related to streaming, frequency and amplitude changes a conductor can more easily identify specific musical ideas that require adjustment in rehearsal.

According to Aaron Copland (1957) we listen to music in three different ways; a sensuous plane for the pleasure of the music itself, an expressive plane where meaning exists that may or may not be expressed in words and a musical plane where the listener can hear melodies, rhythms, harmonies and tone colours. In his book *What to Listen for in Music*, Copland

communicates that one listens to music on these three planes simultaneously. This is described as being both inside and outside the music, because one is able to judge and enjoy music and yet still listen for something specific found within it. Copland claims a composer writing music, must “be carried away by it and at the same time coldly critical of it” (p. 19). Similarly a conductor should enjoy the music’s expressivity and be critical as he interprets the auditory scene.

The term *auditory scene analysis*, coined by Canadian psychologist Albert Bregman, is the process by which the human auditory system organizes sound into perceptually meaningful events. One of the main psychoacoustic principles found in this expansive text deals with auditory streams that can be perceived as either integrated or segregated. According to Bregman, an auditory stream is our perceptual grouping of the sounds or parts of sounds that represent a single happening typically originating from the same source. Both psychologists and music researchers have investigated the streaming phenomenon, where our ears segregate an individual sound or series of sounds from other integrated sounds and the mind arranges them into a single auditory image. Student-conductors, musicians and audience goers who are adept at this skill can listen to several instruments at the same time and follow each as an independent musical line. Bregman & Dannenbring (1973) discovered that the streaming effect becomes more prominent as the tempo increases. A student-conductor who desires to maintain the continuity of a musical line and have it remain a single auditory idea, should remember that one’s chosen tempo and the intervallic distance between each pitch both impact whether additional musical ideas will emerge.

Auditory researcher, Plomp, explains the fact that the pitch and timbre of each individual sound are so readily perceived proves that hearing even at its most elementary level is the result

of highly “intelligent” processes (Moore, 2003). A student-conductor must be coached to explore the horizontal facets of melodic lines and the salient moments and motivic ideas contained within them.

Another interesting psychoacoustic phenomenon is the illusory continuation of one sound behind another, also known as a perceptual closure through occluding sounds. Basically when a glide of broken sounds is presented with no masking sound in between one will hear a series of rising and falling glides, but not fuse them together as a single sound event. However, when a masking sound is placed between the glides, one will perceive a single continuous glide that passes through the interrupting noise. A masking sound helps to provide perceptual closure by revealing the missing evidence needed to connect the fragmented sounds (Bregman, 1990).

Non-chord tones such as pedal tones or anchor tones sustained through a series of chord progressions function like a masking sound by binding together sounds to form a single musical idea, rather than a fragmented stream of multiple ideas. While it is crucial that music educators utilize excerpts that allow students to experience this principle one should also use excerpts that help students to conduct emblems and fragmented streams of salient ideas. Student-conductors who encounter repertoire that influences their melodic streaming in the manners described above improve their auditory scene analysis deficits and are more capable to represent both melodic and motivic moments.

Dissonance and the controversial theories attached to the term, contain implications derived from a historical series of rules and musical opinions passed down through the ages; however, it seems more useful to define the term based on experiences inherent in normal hearing. Wright and Bregman (1987) deem that dissonance is strongest in polyphonic music when all the notes are heard as part of one auditory stream and much weaker when the notes of a

dissonant chord are captured into separate auditory streams. Therefore the manner in which intervallic vertical dissonance is perceived between notes depends on how well the notes are integrated into their respective horizontal or melodic streams. When multiple instruments play a homophonic musical passage our auditory system fuses harmonics that move in parallel frequency paths; therefore, when a student-conductor analyzes several different musical passages contained within an instrumental or vocal score, it is important for him to consider the role of the presented non-chord tones, as composers often add pitches to soften the chord's dissonance and vertically fuse the notes (Huron, 1991).

Another factor that influences the fusion of note groupings is a simultaneous amplitude change regardless of where the sounds originate or are located spatially. A synchronous change in amplitude is capable of causing sounds to fuse into one tone and/or separate tones to fuse into one chord. The previously mentioned hypothesis that not all emblematic gestures are equal and the precise execution of an emblem can influence sound is believed by myself, the researcher, to be seemingly connected to simultaneous amplitude changes. Wind band march-style excerpts chosen specifically for the number of salient moments and amplitude changes contained within them are hypothesized to be useful tools in helping student-conductors to interact with emblematic musical moments. This type of interaction should help student-conductors to experience a more homogeneous relationship between gesture and sound.

1.2 Musicality and Gestalt Theory of Expression

Instrumental music is a form of abstract art in the sense that the objects one identifies with include an auditory soundscape, visual gestures created by the ensemble and visual gestures displayed by the conductor. A student-conductor must ensure the projected modes he uses to outwardly communicate musical information and leadership reflect the artistry of his

psychological vision and inward interpretation of the score. One's movements, posture and facial expressions must align and connect to the musical situation to allow for the occurrence of a combined psychological journey between the musicians and conductor.

An ensemble's perception of a student-conductor can also dictate how it responds and reacts musically to the exhibited gestures, facial expressions and verbal comments or combinations thereof given in rehearsal, as well those displayed in performance. Max Rudolph (1995) suggests a communicative hierarchy, where one's eyes and facial expressions have the ability to relay more about the music than fancy gestures. Marc Leman (2008) outlines three key aspects of musicality. Expressiveness that conveys an affective quality, intentionality or a corporeally executed goal-directed action and presence that involves the direct feeling of enacting one's intentions in the external environment; all which must be included in the discussion of congruent and incongruent communication that occurs between a conductor and an ensemble.

Student-conductors should be encouraged to utilize their ongoing auditory perceptions to express emotion. This primary component and function of the act of non-verbal conducting was framed by Ostling (1977) in terms of the Gestalt theory of expression where movements are physical acts that emerge from an inner correspondence of one's state of mind. According to Ostling, Gestalt theory also postulates that an observer can deduce the expresser's state of mind by his physical qualities if the perceptual experience of the observer is structurally similar to the psychical situation of the expresser. The theory extends that the observed expression may bring about a corresponding state of mind and can provoke a corresponding kinesthetic experience in the observer, as well as reminding the observer of other observations in which a similar expression played a role.

Morrison et al. (2009) investigated whether differences in conductor expressivity would impact listener evaluations of ensemble expressivity scores when the ensemble performances were identical and technically precise. The authors maintain while it is uncertain if the low-expressive conducting had a negative impact on the listeners' evaluation of a musical performance or whether the high-expressive conducting had a more positive impact, conductor expressivity viewed simultaneous with musical performance does have a significant bearing on how listeners judge the expressivity of a performance. This result is congruent with multimodal research which gives superiority to visual over aural information. More importantly it is the intricate interaction between the aural and the visual which may serve to help us understand how non-verbal gestures can influence the expressive aspects of a musical performance.

Gallese and Goldman (1998) hypothesized that the neurons in premotor cortex (area F5 in monkeys) and superior temporal sulcus (STS) represent different stages of the same coding process. It is believed the STS neurons create a primary graphic description of the actions that are fed to the F5 area's motor vocabulary to obtain meaning of the observed actions. A mirror neuron becomes active during the execution and observation of an action; hence, there is a mirroring of another individual's action in one's own nervous system. The authors also state:

What makes a movement into a motor act is the presence of a goal. This distinction is very important since it allows one to interpret the role of the motor system not just in terms of the control of the dynamic variables of movement, but rather as a possible candidate for the instantiation of mental states such as purpose or intention. (p. 493)

In the same strain, a conductor's gesture can be defined as a series of motor acts that reflect the presence of musical goals containing purpose or intention. Gestures or "expressive movements attempting to connect the body and music" could also be defined as "mind, guided by will" (Muñoz, 2007, p. 55). A current psychological simulation theory posits that without making inferences or uttering a single word an individual can observe another's action and mirror

neurons position him in the same state that produced the other individual's action, enabling him to understand the other individual's intention (Heyes, 2010). Akin to the Gestalt theory of expression, this neurological belief may serve to define elements of social cognition and interpersonal interaction largely utilized in one's rehearsal atmosphere.

In a musical performance situation where no words are uttered between the conductor and ensemble, the ensemble musicians who observe the conductor's gestures are placed in the same state of mind and collectively understand the music's purpose and intent, or at least the conductor's interpretation of them. Mirror neurons may explain how individual ensemble musicians and audience members make sense of the motor acts of many different conductors, as well as the intention or purpose behind the idiosyncratic acts of other conductors. An audience member's observation of the motor acts of the highly expressive conductor placed in the conductor's more expressive state of mind by mirror neurons at work, could explain why a listener might obtain an elevated auditory experience that was deemed more expressive.

1.3 Leadership and Imagination

In his interview with Maestro Sir George Solti, Dennis Polkow (2001), awarding winning Chicago journalist, asked whether conductors are born or made? Maestro Solti replied:

They are born in the sense that leadership is something you cannot teach; you either have this, or you don't. It's very easy to judge any young person who wants to be a conductor in ten minutes. It's not a question of how well they are doing, but do they have that specific talent of leadership. If not they will never make it. No matter how musically talented he may be otherwise, without that, forget it... A first class conductor is a combination of intelligence, psychology, and knowing how to ride the possibilities in the moment-being able to feel the hearts and minds of your players. (p. 8)

The student-conductor should be encouraged to display leadership off the podium by creating musical imaginings derived from score study. Then on the podium he should be encouraged to bring forward these imaginings to influence the reality of the ensemble's sound.

I believe strongly that a student-conductor displays leadership on the podium by using his projective modes which include gestural-kinesthetic, emotional-facial and combined expressions to inspire a musical landscape that stems from his vision and convincing musical interpretation derived from score study. Clarified in Barenboim's *Chicago Symphony Orchestra 2005-06* season concert brochure; "while a conductor cannot actually produce the musical sounds, he can influence and inspire bringing the orchestra, audience and himself together as one, to experience the musical 'journey' simultaneously" (Battisti, 2007, p. 118). The extent to which a conductor-leader can inspire and influence the musical landscape and the ensemble and audience's perception of sound depends largely on his presence displayed on the podium.

For example the undergraduate conductor-leader should display proper torso posture. Kirchhoff (2007) maintains "the torso is the visual manifestation of the support mechanism that either sustains or collapses the breath support of students." Both the conductor's movements and emotional facial expressions connected to the breath impulse impact the overall quality of the ensemble's sound and the creation of musical imagery perceived by others.

Closely tied to leadership, imagination can be used to balance the potential conflicts that exist between the function of conducting as an act of rehearsal and its importance for creating ensemble, versus conducting as a visual performance and its importance for the audience and the ensemble. The student-conductor must be encouraged to outwardly reflect on whether or not the sound contained in his imagination coincides with the ensemble's real-time sound production whether in rehearsal or concert. There is a longstanding philosophical underpinning maintained by orchestral conductors, like Leopold Stokowski and others in Carl Bamberger's (1965) *The Conductor's Art*, that only the mechanics of gesture, how to beat time, read scores, and the

nature of how instruments sound together can be taught, while imagination linked to expressive gesture subsequently, cannot be taught:

To be able to evoke the poetry of music- to give vitality to every phrase of its expression- to understand and project the inner meaning of the music- its deepest essence- its soul- these and many of the other highest qualities of conducting are born in a man. (p. 203)

Currently many researchers suspect the act of conducting requires a balance of one's intelligences. Gardner (1993) claims these intelligences rarely operate independently; rather, they complement one another during moments that require problem solving. Edward Lisk (2006) gives a wonderful example of how seven of the multiple intelligences work together. This particular quote weaves together many of the roles and responsibilities that student-conductors encounter in their educational journey:

...read and study music textbooks, history, theory, etc. (Linguistic); be able to read musical notation and understand complex rhythm patterns and time signatures (Logical-Mathematical, Musical); be able to interpret scores and composer's intent (Visual-Spatial) with the ability to communicate what you are feeling (Intrapersonal) with ensemble members (Interpersonal); and to demonstrate the musical example with an instrument what the mind directs the hands/body to do with an instrument or conducting (Bodily-Kinesthetic). (p. 97)

This philosophic idea fortunately extends to the music education setting which believes both the technical/ mechanical and the musically aesthetic constructs of sound should be taught to the student-conductor and relayed to the musicians in his ensemble. Both the education of musicians and a student-conductor requires a balanced approach where the learning, creating, performing and imagining of music involves different combinations of one's intelligences and learning styles.

An auditory learner will connect with the musical message through a combination of verbal imagery and brief technical explanation (Grechesky, 1985) and played or sung modeling. A visual learner will appreciate clear gestures and facial expressions that reflect musical

moments (Mayne, 1992). A tactile learner will benefit from rehearsals where active music-making is paramount and the student-conductor communicates verbal ideas quickly and efficiently (Saunders & Worthington, 1990). Whether in rehearsal or performance the student-conductor must acknowledge that his art is a multifunctional exchange of ideas as explained by Grechesky (1985):

The conductor functions as the focal point in a four-fold process of symbolic transformation across different modalities. He is the link between the visual mode of the printed score, the internal aural mode of the conception of musical meaning, the visual communication mode of physical gesture, and the outward aural mode of the actual sounds in virtual time. (p. 14)

Similar to the balanced approach of non-verbal musical gesture, both the technical and musical constructs of sound must receive balanced attention in the classroom rehearsal setting. “Without understood meaning, the value of the communication that takes place between the [student-] conductor and ensemble is limited” (Roebke, 2005, p. 5). Not only do student-conductors need to teach the musicians in their ensemble the meaning behind their non-verbal musical gestures, but they should instruct them precisely when to pay attention to these gestures. This may explain why experienced musicians are more receptive and perceptive to a conductor’s expressive nuance.

Raising a musician’s visual awareness helps balance the need for the conductor to be clear and precise versus placing the responsibility for collective response with the ensemble. Tempo adjustments that alter the music’s pacing or a tenuto marking that temporarily stretches the rhythmic value of a note require a musician to watch more than musical moments that maintain an even tempo or regular pacing. Volume adjustments or changes in the music’s dynamic landscape also require a musician to watch the student-conductor. A musician’s visual

and aural perceptions are influenced by what he or she expects to see and hear in these types of moments.

Returning to Grechesky's quote and expanding on it, it is therefore the link between the student-conductor's visual engagement with the score and his inner aural interpretation of it that interacts with the physical manifestation of his gestures. These gestures are interpreted by musicians who judge their expressive nature alongside the ongoing sounds they experience which confirm or disconfirm what they visually understand. Simultaneously the physical manifestation of the student-conductor's gestures are altered by his aural understanding of the expressive nature of the sounds produced by the musicians that either confirm or disconfirm his aural interpretation derived from the visual score.

Chapter Two will discuss how the multifunctional act of conducting can be used to express emotion and encourage a more homogeneous relationship between gesture and sound. An awareness of performance flow, the employment of significant non-verbal gestures, projective mode dominance, emblem information, sensory-motor relationships and perceptual theories will be covered in the literature review. A student-conductor should make large strides in his gestural capabilities of emblematic musical moments when he uses his imagination, raises student audiovisual awareness, raises his own auditory and kinesthetic awareness and provides instruction of repertoire that focuses on both the technical and musical principles of sound.

Chapter 2: Review of the Literature

2.1 Background of Technological Devices

Upon careful examination of conducting technique and gestural kinesthesia, or the awareness of one's motion while in motion, there is a significant gap in the literature with respect to how these elements can improve undergraduate conducting pedagogy, rehearsal efficiency and ensemble sound results. Conducting research has been linked to many different technological devices such as the radio drum (1989), radio baton (1991/ 1994), digital baton (1997), wireless midi-glove (1999) and the conductor's jacket (2000) (Kun, 2004). Primarily professional conductors rather than undergraduate conducting students have been studied. In the past two decades, three-dimensional motion capture studies have looked at motion analysis and mapping sounds to music (2002), investigated the gestural control of music (2003) and made comparisons of video data to motion capture data (2004). Similar to professional conductors, it is crucial that researchers begin to investigate sociocultural aspects and societal views of innate conducting ability of undergraduate conducting students and their perception of skill versus demonstrated skill.

Motion capture research is headed in many directions. Although it has been used as a data collection tool to study dance performance, sign language, rehabilitation, biomechanics, computer animation, special effects and athletics it is just beginning to be used in the field of music. A survey of academic discourse focused primarily on the development of conducting technique helped to unearth the oppositional nature of the two most common gestural paradigms, the mechanical and the musical. In general, comprehensive conducting textbooks give predominant attention to the technical development and mechanics of gesture (Green & Gibson, 2003; Rudolf, 1995; Schuller, 1997; Grosbayne, 1973; Hunsberger and Ernst, 1992; Prausnitz,

1983). The notion that conducting is an art that involves a gestural vocabulary that relays the mechanical and musical aspects of sound is generally accepted; however, there is not a universally agreed upon vocabulary or syntax for various gestures. Many authors have discussed reform and suggested the training of undergraduate conductors must emphasize gestural expression (Baker, 1992; Bartee, 1977; Laib, 1993; Lonis, 1993). As a result, many studies discussed mime and acting (Running, 2008) imagery and movement exercises (Orzolek, 1995) Laban movement theory (Bartee, 1977; Benge, 1996; Billingham, 2001; Gambetta, 2005; Hibbard, 1994; Miller, 1988; Yontz, 2001) and a number of technological approaches (Holder, 2007; Hollinger & Sullivan, 2007; Kraus, Gonzalez, Hill, & Humphreys, 2004; Schwaegler, 1984).

2.2 Defining the Roles and Functions of the Conductor-Teacher and Teacher-Conductor

The roles of the conductor-teacher and the teacher-conductor are relevant to the technical/mechanical and the musical/spiritual aspects of music. This delineation coined by Bruno Walter, a prominent twentieth century orchestral conductor, is required to balance the many functions of conducting. A maintained state of equilibrium between the technical and musical principles of sound used to create, perform and instruct is valuable.

The philosophic differences between the teacher-conductor and the conductor-teacher involve the five technical and musical constructs of sound and the educational accountability attached to each construct, not the manner in which the ideas are instructionally achieved; gesture, verbal or a gestural-verbal combination.

2.2.1 Technical and Musical Constructs of Sound

An undergraduate conductor's primary focus of instruction should be the musicians' achievement and ownership of technical sound constructs based on executing correct rhythms,

articulations, pitches, tempos and instrument family balance with a secondary focus given to the musical constructs of sound. Conversely deemphasizing technical sound constructs and becoming chiefly accountable for the musical constructs of sound, the undergraduate conductor's primary focus should involve raising each student's awareness of proper phrasing, dynamics, intonation, tempo transitions and ensemble balance. (Access the Instrumental Music Director Flow Chart, Figure 2.2 on page 39 for a visual representation of the role divisions and constructs of sound discussed.)

2.2.2 Balanced Flow Experience Across Five Dimensions of Thoughtful Listening

William Finn (1944) provides an optimal view of the balance of symbolic transformation between the technical and musical that a conductor should strive to achieve:

Music is both a science and an art. To achieve its full potential all the factors which compose the synthesis must be revealed. Some conductors react chiefly to the theoretical features and present music in its mathematical colder aspects, while others, perhaps immoderately sensitive to its more subtle and emotive construction set forth with an excess of romantic imagery. Conductors of either class can give only inadequate performances. The master conductor recognizes, is influenced by, and undertakes to reveal both the academic and emotional factors found in music. (p. 5)

Performance flow and moment awareness during the engagement of at least five dimensions of thoughtful listening are important conducting functions. A student-conductor is responsible for these functions in the classroom and/or laboratory band setting. At any moment the three-dimensional undergraduate conductor must be able to focus in on one dimension, keep a simultaneous awareness and care for the other dimensions and create gestures of significance without negatively impacting the performance flow of other dimensions. Mihalyi Csikszentmihalyi (1996) refers to the achievement of this state as a flow experience. A flow experience helps to balance the many functions of conducting in rehearsal.

The conceptual model of various dimensions of thoughtful listening (Hopkins, 2006)

aided the creation of the five dimensions included in this discussion. Each dimension derived from different combinations of the identified sound constructs, plays an equal role in maintaining a balanced flow experience. (A visual model of the relationships that exist between the five dimensions of thoughtful listening and constructs of sound can be viewed on the Instrumental Music Director Flow Chart, Figure 2.2 on page 39). The context/form dimension considers the musical style and form, execution of ornaments, historical tempo change influences and key musical moments, while the technique dimension listens for the accurate execution of intonation, pitches and rhythms. The analysis dimension ponders the horizontal construction of harmonies, melodies, rhythms and pitches, while the phrasing dimension or contour dimension, considers volumes, note durations and tempo subtleties of each phrase. The colour dimension involves articulations, instrument blends, dynamics and intonation which influence the sound's timbre.

Undergraduate conductors must learn that a sensible series of rehearsal plans should reflect an approach which engages the ensemble in each dimension of thoughtful listening or the ensemble's complete understanding will suffer. Failing to address a certain dimension can impact the sound result of other dimensions. Product-oriented music programs that value the technical dimension of musical listening and the elimination of performance errors, rather than the aesthetic message music can embody, restrict music's "...power to lift us out of the ordinary, to elevate our experience beyond the everyday and the commonplace" (Swanwick, 1999, p. 3). Gardner's (1999) $8\frac{1}{2}$ intelligence or existential intelligence concerns itself with this type of experience. Reimer's (2003) *A Philosophy of Music Education* calls attention to the idea that students lose joy, interest and satisfaction when technique (and analysis dimensions of listening) is overemphasized and isolated from the aesthetic musical experience (or phrasing and colour dimensions of listening).

2.2.3 The 3E Principles of Gestural Significance and Insignificance

The ability to respond to different musical situations occurring in the moment is irrevocably linked to another function of the act of conducting. A conductor-teacher must be capable of employing non-verbal gestures of significance and limit the use of gestures that contain no particular significance. Upon review of the current literature and widespread discussion concerning the multifaceted nature of conducting gesture and its execution, it became necessary to define gesture in terms of its distinct function and situational importance or significance. An exploration of common adjectives used to describe various conducting gestures resulted in my formulation of the 3E principles of gestural significance; expressive, emblematic, and encouraging as well as the 3E principles of gestural insignificance; extraneous, everyday, and exaggerated. Specific categories of gesture outlined in Colin Durrant's (2003) *Choral Conducting: Philosophy and Practice* are similar to many of the identified principles of gestural significance and insignificance.

The 3E principles of non-verbal gestural significance are seemingly related to the constructs of musical sound production. Ideally expressive gestures should coincide with proper musical phrasing, the piece's dynamic landscape and aid in tempo transitions. Emblematic gestures ought to outline and emphasize key sound moments and musical ornaments. Encouraging gestures should promote superior intonation across short and long rhythmic values. To reference a visual connection of these concepts view the Instrumental Musical Director Flow Chart on page 39. The 3E principles of non-verbal gestural insignificance represent deficient interactions that connect to negative aspects of sound production. Extraneous gestures often endorse out of tune pitches. Everyday gestures give the visual go-ahead to a limited dynamic landscape and lack of phrase development. Exaggerated gestures sanction out of balance sounds

that don't blend properly.

2.3 Projective Mode Dominance

Baker's (1992) analysis of conducting pedagogy in American higher education addressed the topic of projective mode dominance and incongruent mixed message communication.

Whether through verbal means used in rehearsal or non-verbal means employed in both concert and rehearsal situations "reduced to its simplest formula, any communication requires two things: (1) the generation of a message and (2) the sharing of that message with others...it is the presence of internal and external, in both the sources of the messages we send and the manner by which we send them, that makes communication both intelligible and fully human," (Baker, 1992, p. 10 & 12). While gestures can be viewed as personal or impersonal and internal or external, the delicate balance of the 3E gestures of significance and insignificance can guide our perceptual understanding of the effects of projective mode dominance in conducting and teaching. For example, echoing and expanding on Baker's suggestions, a kinesthetic-dominant must ensure his or her creative energy is not wasted in exaggerated movements that are distracting or that excessively leak from key areas like the head, shoulders, mouth, wrists, elbows, knees and feet (Freeman, 2006). Similarly an emotional-dominant who easily expresses feelings contained within the music, must ensure his facial expressions and body language truly reflect the mood of the music or his non-verbal emblematic gestures lose their effectiveness. A vocal-dominant must consider the quantity and quality of his coaching, singing, humming, verbal imagery and descriptive explanations.

Discovery and acknowledgement of one's projective dominant mode is useful in directing the flow of energy and skillful effort needed to ensure both non-verbal and verbal communication strategies are employed by the undergraduate conductor. From these three

modes, six combinations of primary-secondary mode dominance also exist which include: kinesthetic-verbal, kinesthetic-emotional, emotional-kinesthetic, emotional-verbal, verbal-kinesthetic and verbal-emotional. Undergraduate conductors who wish to prevent restricted growth and development must address their own tendencies linked to perceptual dominance and examine the effects of significance and insignificance this has on both their primary and secondary dominant modes of communication.

While the three projective modes of the undergraduate conductor can be understood and examined as independent variables, the messages one sends are hopelessly intertwined and can agree or disagree with other messages. The disagreement of multimodal messages, also coined as incongruent communication in neuro-linguistic programming (Baker, 1992) can have a negative impact on how others perceive our conducting gestures. Whether we are conscious of it or not, we project in a multimodal manner and the musicians in our ensembles perceive our projections multimodally. Undergraduate conducting students must become aware of their mixed messages by identifying projective modes that conflict to encourage growth in their abilities to communicate effectively and efficiently.

One of the conductor-leader's primary jobs in concert is to convey with gesture the nuance of the musical constructs of sound to the musicians and audience. While one must tend to technical sound constructs that arise through gestural/kinesthetic or emotional/facial response, the repertoire's mechanical matters previously targeted in rehearsal will require less gestural attention. Eugene Corporon's opinion of the philanthropic struggle that all conductor-leaders face in concert is as follows:

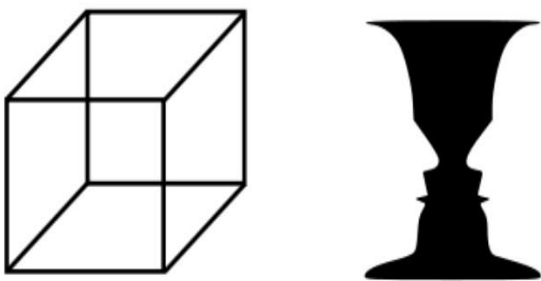
The essential challenge is finding a way to portray the sound physically, to visualize the audible and in the process do it in such a way that helps the players and audience understand the expressive, emotional, and aesthetic content of the work. (Kirchhoff, 2007, p. 2)

The visual aspect of a conductor's movement is a frame of reference for audience members. The transmission of intuitive and psychical impulses between the conductor and the ensemble and the technical and emotional understandings previously established in rehearsal will remain unseen aspects of the art (Bamberger, 1965).

2.4 Emblems

Emblems or non-verbal gestural illustrators intended to outline goal-oriented sound chunks are produced by conductors to relay various abstract representations of salient moments containing musical meaning and intent. Emblems are holistic and processed by the sound producing musician as a single audio-action unit. They are mutually exclusive in that multiple emblems cannot be processed simultaneously only combined to make a new holistically understood emblem. Like our visual perception of the Necker Cube or Faces and Vases (see Figure 2.1) only one of the emblem's audiomotor configurations can be recognized at a time.

Figure 2.1: Necker Cube and Faces and Vases



The perceptual constancy of an emblem is maintained across changes in size and effector muscles, like an individual's signature the formal structure is maintained. The ideo-audiomotor capability of emblems involves the notion that the gestural motor chunk stimulus matches the auditory response goal.

While there is evidence for anticipation in motor control (Rosenbaum, Cohen, Jax, Weiss, & van der Wel, 2007) holistic or Gestalt-like principles of motor action (Klapp & Jagacinski, 2011) outline a perceptual model whereby emblematic moments are primarily processed as single audio-action units by the sound producing musician.

2.4.1 Pedagogical Contributions Via Laban Movement Analysis and Theory

Rudolf von Laban, the Hungarian pioneer of the German modern dance movement, analyzed force qualities of movement in a comprehensive way by providing eight distinct classifications of ‘effort’. These classifications provide a sufficient model for viewing emblematic gestures because pivotal descriptors such as force and timing are considered for each action (Miller, 1988). The theoretical principles and gestural concepts derived from Laban Movement Analysis (LMA) provide a pedagogical foundation for instructing student-conductors to execute and experiment with expressive motion. (Bartee, 1977; Benge, 1996; Billingham, 2001; Gambetta, 2005; Hibbard, 1994; Miller, 1988; Yontz, 2001). Analyzing movement in a comprehensive way by providing eight distinctive classifications of “effort” has proven useful. Like dancers, conductors are movement artists who manipulate force, time and space to produce gestures that reflect musical moments. Billingham’s (2001) research with graduate student choral conductors successfully implemented six of the eight efforts found in Table 2.1. The conductors were able to communicate the desired musical moments and only slash and wring required a modified approach. The study concluded that the gestural meaning and effectiveness of the efforts increased when they were performed in combination with traditional beat patterns.

Further studies suggest that those who consciously improve and utilize non-verbal illustrators can inspire more musically expressive performances (Grechesky, 1985; Sousa, 1988). This coarticulated connection however is often neglected and rarely practiced in rehearsal or

Table 2.1: Rudolf von Laban's Eight Classifications of Effort/Action

FORCE (Weight)	TIME (Speed)	SPACE (Intent of Spatial Attention)	EFFORT/ ACTION
Strong	Sudden	Direct	Punch
Light	Sudden	Direct	Dab
Strong	Sustained	Direct	Press
Light	Sustained	Direct	Glide
Strong	Sudden	Flexible	Slash
Light	Sudden	Flexible	Flick
Strong	Sustained	Flexible	Wring
Light	Sustained	Flexible	Float

demonstrated in concert due to a lack of conductor training, misinterpreted gestural kinesthesia, limited technical conducting ability or an auditory scene analysis deficit. An auditory scene analysis deficit involves one's inability to make sense of certain dimensions of the auditory landscape encountered (Bregman, 1990).

2.4.2 Sensory-Motor Relationships and Perceptual Couplings

Zatorre, Chen and Penhune's (2007) discussion of motor control and tonal perception and the neural mechanisms that facilitate this interaction is a comprehensive summary. Research of sensorimotor relationships during speech or when one grasps an object has been performed. The actions required in music performance make unique neural processing demands. One must execute timed precision to follow a rhythmic hierarchy and control the specific frequency ratios found in the intervallic structure of pitches being produced. The study of musical timing and the motor control system involves simultaneous sequencing and spatial organization. Finger tapping studies of simple rhythms suggest the basal ganglia aids the accuracy of timing (Haaland et al.,

1997). Studies concerned with the perception and reproduction of complex rhythms revealed greater neuronal activity in the lateral cerebellar hemispheres and the dorsal prefrontal cortex (Chen et al., 2008; Praamstra et al., 2004).

The current thought concerning the auditory cortex is that there are at least three streams of activity that originate from it and reach different destinations. One is believed to travel anteriorly along the superior temporal gyrus, another travels ventrally within the temporal neocortex and one which follows a dorsal course reaching parietal areas. In particular, the latter may be relevant for tracking time-varied events and spatial processing involved in auditory-motor transformations found in performance situations (Zatorre et al., 2007). Auditory feedback is particularly relevant when playing an instrument because a musician listens and makes timed motor adjustments. A significant study revealed that when auditory feedback was removed, pianists could execute a familiar piece, yet the expressive aspects of their performance were not the same (Repp, 1999).

Overlaps or couplings have been observed between auditory and premotor cortices in performing and listening contexts that suggest the two systems closely interact. This has been accomplished by looking at the brain activity of a subject playing a well known piece receiving no auditory feedback and comparing it with the activity of a subject who simply listens to the piece (Bangert et al., 2006; Baumann et al., 2005; Haueisen, & Knösche, 2001). The curious audiovisual conversation that occurs in music performance between a conductor and an ensemble involves a bimodal reflection. The ensemble responds to the conductor's gestures that correspond to the performance sounds, simultaneous to the conductor who responds to the ensemble's performance sounds that coincide with each musician's playing gestures.

2.4.3 Fusion of Perceptual Theories

Godøy's (2006 & 2009) model that our perception of salient musical moments is guided by *gestural-sonic objects* or mental images that fuse auditory input with gestural boundaries. This model combines G.A. Miller's (1956) perceptual chunk theory of deciphering complex sensory information and Schaeffer's (1967) *sonic object* with Husserl's (1991) phenomenological theory that perception is guided by a chain of successive now-points. The timescales of the sonic features and music-related actions of emblems can be situated directly within Synder's (2000) short-term memory of melodic and rhythmic grouping or second level of musical experience.

2.4.4 Mirror Neuron Activation and New Teaching and Learning Pedagogies

The evidence supporting a mirror neuron system in humans comes from neuroimaging studies involving electroencephalography, magnetoencephalography and transcranial magnetic stimulation [TMS]. Two primary mirror-like networks were discovered (Rizzolatti & Craighero, 2004). One was located in the parietal lobe, premotor cortex and inferior frontal gyrus, known as the parieto-frontal mirror system, while the other resided in the insula and anterior mesial frontal cortex or limbic mirror system. The former is involved in the recognition of voluntary behaviour, while the latter devotes itself primarily to the recognition of affective behaviour (Cattaneo & Rizzolatti, 2009). Cattaneo and Rizzolatti's mirror neuron findings of two dance performance studies may have parallel implications concerning music performance observations. The first fMRI investigation involving expert dancers found that while the activation of one's mirror neuron system is directly related to the observer's motor experience of a given action, the amount of activation displayed correlates with the degree of skill he possesses for the action (Calvo-Merino et al., 2005). A later study revealed those initially naive to certain dance steps,

showed an increase in mirror activation when they underwent a period of motor training where they acquired skill for the steps (Cross, Hamilton & Grafton, 2006). Pedagogical approaches involving the teaching and learning of emblems should encourage increased mirror neuron activation through motor training and gestural skill acquisition.

The observational learning implications gathered from these studies and others that posit similar results indicate a probable connection to the realm of experience obtained by an ensemble and a conductor. Whether one reviews his own sounds, actions and sonic-objects or those of others, it is believed that the mirror neuron system will continue firing even when his muscles are resting. Once the brain has learned an action it can simulate the action without moving (Helding, 2010).

Chapter Three will examine the complete research design and mixed methodology employed in this study.

Figure 2.2: Instrumental Music Director Flow Chart



Chapter 3: Research Design and Mixed Methodology

This particular research involves three processes of change which include unfreezing, changing and refreezing (Lewin, 1958). Stated simply, faced with a disconfirmation, an individual becomes aware of a need for change. The situation is diagnosed and new models of behaviour are tested, measured and adopted if useful. Action research and the different methodologies either focus on the actions taken or the knowledge garnered from the actions. As a result, tension can exist between those that are motivated by goal attainment and those motivated by the personal transformation goal. That said, it is an effective tool for heightening the musician's and the undergraduate conductor's sonic-object awareness. Each must learn to reconcile multimodal disagreements to produce music that reflects the conductor's unique interpretation of a composition.

My doctoral research looks at the congruent and incongruent communication that occurs between each conductor's gesture and the chamber wind ensemble's musical sounds. Conducting is an art, which has evolved over time across multiple cultures. Historical conducting texts discuss general movement practices and basic techniques applicable to a variety of performance scenarios. Movement pedagogies and scholarly publications focused on the alignment of gesture and sound have contributed to our understanding of the art form. Incongruent communication or multimodal disagreements between gesture and sound reveal instances where emblems should be applied to the movement landscape. Emblematic gesture coaching exercises, designed to emphasize salient sound moments using Laban's action principles, help to align the multimodal communication of gesture and sound. These exercises can be applied to a variety of musical repertoire, especially march-style excerpts.

The observations made in my doctoral research are intended to contribute to the body of

musical research that addresses the impact of specific emblematic conducting gestures and their alignment with salient moments. The rarely explicated observations and relationships discovered are not designed to produce a scientific standard of gestural conducting conditions that must be followed for certain performance results to occur. The published results and conclusions will inform scholarship in conducting performance pedagogy that can be used by instrumental and choral music teachers, and post-secondary educators.

As stated in the introduction, the main purpose of this doctoral research project is to explore the congruency or lack thereof between an ensemble's collective sound and the conductor's displayed gestural palette. The primary hypothesis is that emblematic conducting improvements increase the likelihood of a more congruent sound result in salient musical moments. It is expected that real-time motion capture technology learning environments, body mind flow and gestural point-light review exercises can be successfully employed to aid the teaching of exhibited performance gestures. Chamber ensemble emblem coaching, point-light emblem identification tests, self-assessment questionnaires, interviews, expert panel evaluations and musician feedback will help determine the usefulness of the approaches.

3.1 Experiment

The motion capture point-light gestures and auditory data presented in this thesis were recorded and collected in the late summer and early fall of 2011 in the FourMs (Music, Mind, Motion, and Machines) Collaborative Interdisciplinary Research Laboratory at the University of Oslo and in the spring of 2012 in the Human Performance Laboratory at the University of Calgary.

3.1.1 Aim

The primary aim of this research was to aid undergraduate conductors to improve their emblematic gestures and increase their gestural vocabulary to execute more expressive gestures. This was accomplished over a series of five to seven sessions using an action research model, and the assistance of audio/video capture and motion capture technology.

3.1.2 Participants

In Oslo, Norway, six undergraduate conductors and nine undergraduate instrumental musicians volunteered to participate in the experiment. They were recruited through student and staff electronic mailing lists at the University of Oslo and Norwegian Music Academy. Similarly, in Calgary, Canada, six undergraduate conductors and twelve undergraduate instrumental musicians volunteered to participate in the experiment, and were recruited through student and staff electronic mailing lists at the University of Calgary. Of the twelve undergraduate conductors who participated in the study, six were randomly assigned to the conductor experimental group, and the remaining six allocated to the conductor control group. In total twelve undergraduate conductors and twenty-one undergraduate instrumental musicians participated in the study. In addition, thirty-three undergraduate non-musicians volunteered to participate in the experiment and were recruited through electronic student mailing lists at the University of Calgary. The researcher, age 36, and a third-party expert panel of six gesture judges evaluated the expressivity and emblematic specificity of the Oslo chamber ensemble's sounds. They also assessed each Oslo conductor's gestural expressivity and emblematic specificity. Each Oslo conductor's kinesthetic connection to the ensemble's auditory result was also evaluated. Judge One, age 62, and Judge Two, age 36, are musical movement experts affiliated with the University of Oslo. Judge Three, age 46, is a dance performance

choreographer and tai chi kineo pedagog and movement expert based in Oslo. Similarly, Judge Four, age 58, and Judge Five, age 44, are gesture experts affiliated with the University of Calgary and Judge Six, age 35, is a dance performance pedagog and choreographer based in Calgary.

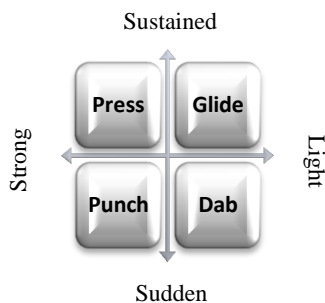
3.1.3 Pre-Learning and Post-Learning Session One Motion Capture Conducting

In both Oslo, Norway and Calgary, Canada the conducting participants created motion capture point-light display gestures of emblematic musical moments. In Oslo, the conductors had the full context of the musical line garnered from studying the musical score. While in Calgary, the conductors listened to eight ensemble sound chunks, each with a duration of two to four seconds without the musical score and context of the full musical line. This design was implemented to see if the study of phrases impacts one's initial gestural representation over study inspired by salient auditory moments.

In Oslo, a Qualisys optical infrared marker-based motion capture system was used in Pre-Learning Session One and Post-Learning Session One to record the movement of the conductors. Four different thirty second wind band march-style excerpts were chosen specifically for the number of salient moments they contained. The march excerpts conducted by each participant included Claudio Grafulla's *Washington Grays March* measure one to the downbeat of measure twenty-eight, Karl L. King's *Barnum and Bailey's Favorite* measure one to the downbeat of measure twenty-five (including the repeat section), Sergei Prokofiev's *March Opus 99* measure one to the downbeat of measure thirty-two and Julius Fučík's *Florentiner March* measure one to the downbeat of measure sixteen. Each conductor was allotted twenty minutes to study the condensed score of all four excerpts prior to performing two trials of each excerpt with the ensemble musicians. The four emblematic gestures and their action descriptors can be understood using the matrix below (see Figure 3.1). In Calgary, a Kintrek optical infrared

marker-based motion capture system was used in Pre-Learning Session One and Post-Learning Session One to record the movement of the conductors conducting two practice trials and six trials of eight randomized ensemble sound chunks. The sound chunks consisted of the four emblems listed in Figure 3.1 and four aggregated or combined emblems. The timescales of the sonic features and music-related actions used in both Pre-Learning and Post-Learning Session One and Two are situated within Synder's (2000) short-term memory melodic and rhythmic grouping or second level of musical experience. The eight sounds and their corresponding

Figure 3.1: Four Emblems and Action Descriptors



gestures enabled a multivariable exploration of sounds, gestures, and gesture-sound combinations (view Table 3.1). The force and time descriptors connected to each audio-action unit can be understood using Table 3.1.

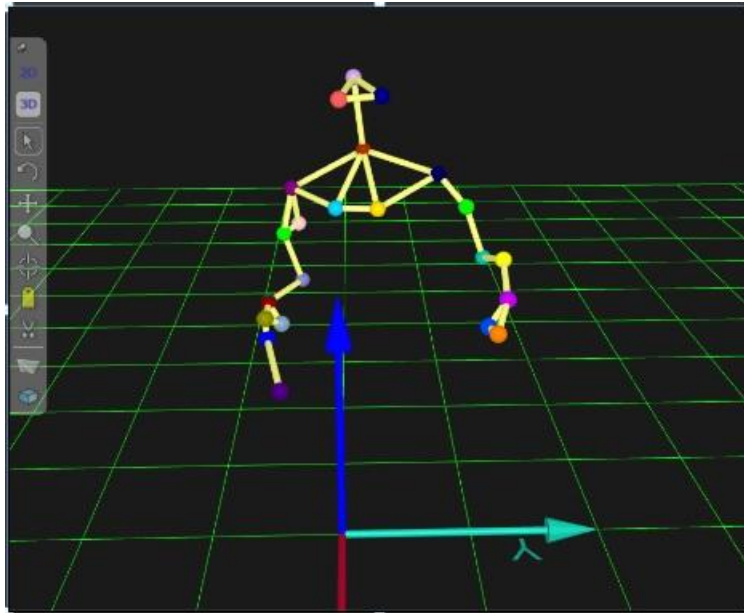
In both Oslo and Calgary, twenty-three total retro-reflective markers were positioned strategically on key joints or areas where movement typically originates. Three markers were placed on a cap worn by each conductor. One marker was positioned at the back of the neck, right and left chest, right and left shoulder, right and left upper arm, right and left elbow, and right and left forearm. All of the markers were attached to a tight-fitting, long-sleeved shirt, worn by each conductor.

Table 3.1: Audio-Action (Sonic-Object) Unit Descriptors

Sound	Emblematic Gesture	Force	Time	Score Clip
1	Press	Strong	Sustained	<i>March Opus 99</i> mm. 9 – 12
2	Glide Dab	Light	Sustained Sudden	<i>Florentiner March</i> mm. 15 - 16 downbeat
3	Glide Punch	Light Strong	Sustained Sudden	<i>Washington Grays March</i> mm. 16 - 18 downbeat
4	Punch	Strong	Sudden	<i>Florentiner March</i> mm. 7 - 8 through fermata
5	Press Punch	Strong	Sustained Sudden	<i>Washington Grays March</i> mm. 26 - 28 downbeat
6	Dab	Light	Sudden	<i>March Opus 99</i> mm. 3 - 7 downbeat
7	Dab Press	Light Strong	Sudden Sustained	<i>March Opus 99</i> mm. 29 – 32
8	Glide	Light	Sustained	<i>Barnum and Bailey's Favorite</i> mm. 9 - 12 downbeat

In addition, one marker was placed on both the right and left wrist, right and left index finger, and right and left thumb. These markers were attached to a pair of latex-free gloves worn by each conductor. One extra marker was placed on the upper right arm to offset the geometry to prevent marker swapping and one marker was placed on the base and tip of the conducting baton used in the motion capture sessions. Figure 3.2 can be used to orient oneself with the study's marker placement employed in the motion capture sessions.

Figure 3.2: Motion Capture Marker Placement Diagram



3.1.4 Pre-Learning and Post-Learning Session Two Accuracy Tests

Eight sonic-objects (audio-action units) were extracted from the point-light displays. Each sonic-object corresponded to the eight ensemble sound chunk units used in Pre-Learning Session One. View Table 3.1 for the score locations of the salient sound chunks and sonic-objects. The point-light display video moments, their corresponding audio moments and coarticulated point-light display video and audio moments were used to create a randomized accuracy test conducted in both Pre-Learning Session Two and Post-Learning Session Two.

This accuracy test was designed to pedagogically explore whether gestural review exercises, body mind flow performance exercises and emblematic gesture coaching performed by the conductor experimental group would increase one's accuracy to match an exhibited emblematic gesture with its corresponding sound chunk. Additionally, the test was created to explore whether the learning sessions would increase one's ability to match a sound chunk with its corresponding emblematic gesture, and/or increase one's capability to identify a sonic-object from a group of sonic-objects that reflected the most congruent auditory and kinesthetic pairing

of movement and sound.

More specifically, in Part One of the accuracy test, each conductor and musician was instructed to select the sound that best fit the gesture subsequent to listening to three different audio clips and viewing one point-light gesture, and inversely viewing one point-light gesture and listening to three different audio clips. One practice clip, along with all eight of the sound identifications and their respective couplings, were presented in a randomized order. Similarly, in Part Two, each participant was instructed to select the gesture that best fit the sound subsequent to listening to one audio clip and viewing three different point-light gestures, and inversely viewing three different point-light gestures and listening to one audio clip. Again, one practice clip, along with all eight of the gesture identifications and their respective couplings were presented in a randomized order. In Part Three, the participants were instructed to select the sound gesture combination or sonic-object that made the most auditory and visual sense subsequent to experiencing three different point-light audio combinations one after another. Nine coarticulated identifications were presented in a randomized order. Forty-three total identifications were collected from each participant. Two weeks later, the same accuracy test was administered to the participants in Post-Learning Session Two; however, each of the three parts of the test contained a new randomization.

It should be noted that the study was flawed in a minor way because the data collection method in Oslo's Pre-Learning Session One was different from Calgary's Pre-Learning Session One. While the participants from both locations interacted with motion capture technology to collect their conducting performances, one location used pre-recorded excerpts while the other used a chamber ensemble. The large-scale musical excerpts of the Oslo conductors were viewed by the expert panel. The eight lengthy emblematic excerpts extracted from the Calgary

conductors were not viewed by the experts because of their randomization differences. The purpose of the study was to allow conductors to interact with new methods and non-traditional approaches, like the point light display motion capture reviews and the body mind flow exercises. Both of these approaches are believed to be important and foundational pedagogical precursors for aiding the hands-on practice of emblems with a live ensemble. The main purpose of the study was to assist each undergraduate conductor to expand his expressive and emblematic movement vocabulary and to heighten the kinesthetic awareness of his movement in salient musical moments. Learning Session One and Two were developed to accomplish these pedagogical goals.

3.1.5 Learning Session One

The activation of one's mirror neuron system during the observation of a motor action coincides with his motor experience of the action. This particular notion led to the pedagogical approach whereby the student-conductors review the motion capture point-light videos of their own conducting movement and that of the others collected in Pre-Learning Session One. Similar to Cattaneo and Rizzolatti's (2009) conclusion, it is hypothesized that the activation of one's mirror neuron system is related to the observer's motor experience for the given emblem and the amount of activation is connected to the degree of skill one possesses for the emblem.

Furthermore, as Calvo-Merino et al. (2005) discovered, it would be logical to hypothesize that conductors who are initially naive to certain emblems will show an increase in mirror neuron activation when they undergo a period of motor training where conducting skill is acquired for the emblems.

Kinematic studies, which look at the similarities between motor representations and actual motor activity support the notion that observing one's past actions, or the actions of another that

are similar to one's past actions, excites the mirror neuron system and aids in action understanding because of the individual's internal motor codes. In Part One of Learning Session One, the experimental group conductors reviewed the sounds, point-light display gestures, and coarticulated sonic-objects of all four excerpts collected from Conductor One through Six. Like a fatigued or injured athlete, a conductor should maintain his ability to perform by watching his own point-light display videos and the other conductors' point-light display videos of past performances. Lahav et al. (2006) cited that listening to a newly learned piece appears to enhance one's motor performance even in the absence of physical practice. It is believed that listening to the excerpts will also enhance the experimental group's motor capabilities.

Part Two of Learning Session One dealt primarily with body awareness and a tai chi inspired approach to movement. While these approaches are relevant pedagogical topics utilized in dance performance, they can be used to improve aspects of conducting performance. In her book, *Bedre flyt: Enkle teknikker for flyt i hverdagen* or *Better Flow: Simple techniques for flow in everyday life*, Norwegian Kari Anne Vadstensvik Bjerkestrand outlines a twelve week investment phase that entails learning a new body mind flow exercise each week. A primary aim of Learning Session One was to help each experimental group conductor to have a body mind flow experience, whereby he seeks to find flow between his body, his mind, and between himself and what he does. In other words, when one's body is engaged, one's mind is engaged and one conducts to music. Flow is a term in this context that means effortless. Effortless motion in this sense refers to a movement or series of movements performed without thinking about the specific action or actions required to produce the movement or series of movements. Like biking or running, after the movement is mastered, one does not focus on the act of pedaling or placing one foot in front of the other, the action is performed without contemplating the movement.

According to the author, flow is present in our emotions, movements and mind.

Six exercises were employed to promote each student-conductor to connect with the centre axis of his body, to become grounded to the floor and to experience the engagement of expressive effortless fluid movement. These learning objectives were introduced to the conductor experimental group in Learning Session One, as foundational learning objectives that would aid each conductor's performance of the emblems practiced in Learning Session Two. In Oslo, the *Bedre flyt* author led Part Two of the session and discussed with the student-conductors how the target learning objectives gleaned from the exercises could be applied to the practice or craft of conducting. In Calgary, the researcher led that part of the session. Prior to beginning the exercises each participant removed his footwear, and socks, and took full advantage of the research space.

While learning sessions are often difficult to replicate, a brief description of the six learning objective exercises has been included should other researchers or instructors desire to experiment with them in the future. Should one wish to obtain detailed descriptions of the pedagogies and/or implement the full twelve week program reference the cited text. This study didn't investigate the benefit of the full twelve week program; however, future research concerning body mind flow pedagogies and conducting performance could test the model. The captions and directions of the learning objective exercises are not direct translations of the text, but serve as descriptors of each pedagogical concept practiced in Learning Session One. The Norwegian title and number of each exercise is referenced in parenthesis at the beginning of each paragraph.

3.1.5.1 Bring Your Body Into Awareness and Create Space in Your Mind

(Øvelse 9) Stand with the feet shoulder width apart and centre the weight of the body

between both feet. Feel the weight of the body ground to the floor. Close the eyes and simply get an impression of the body, as it is either tense or relaxed. Slowly bring the breath into awareness, and observe the breath during each inhalation and exhalation. Relax the entire body and notice how it slightly moves. Forget about the day's activities, quiet the mind, and focus on the presence of the fingers and the weight of the arms. Bring the body into awareness, create space in the mind, clear the clutter from the mind and simply focus on the breath. Open the eyes. A conductor must be able to work and be present in the musical moment. In order for this to happen, he must clear all other concerns from his mind.

3.1.5.2 Find Your Body's Central Axis

(Øvelse 1- Akse) Stand with the feet shoulder width apart. Move the body from side to side. Turn the trunk of the body very slowly. Once this is established continue to rotate effortlessly from the central axis and allow the arms to follow. Draw awareness to the movement. Connect to the middle line of the body and then gradually begin to speed up the movement. Breath in and out during this movement's execution. The arms maintain a relaxed state and flop as they follow the body as it twists from the central axis. Shake it out. Moving from the central axis is important when cueing different instruments in an ensemble.

3.1.5.3 Stabilize Your Central Axis

(Øvelse 10- Å senke hendene) Similar to a yoga sun salutation, gently extend the arms out and up with the palms of the hands facing upward. Allow the hands to meet at the body's centre line above the head. Keep the hands together and draw them down to the waist line. Inhale as the arms extend out and up. Exhale when the hands meet and travel down the body's central axis line. Feel the body's energy ground to the floor.

Table 3.2: Research Design

INPUT/ (PRE-LEARNING) Undergraduate Conductor Experimental & Control Group (All 12 participants)	TRANSFORMATION/ (LEARNING) Undergraduate Conductor Experimental Group (6 of the 12 participants randomly selected)	OUTPUT/ (POST-LEARNING) Undergraduate Conductor Experimental & Control Group (All 12 participants)
<p>PLANNING</p> <p><u>Session One (Oslo, Norway)-</u> Collect Conductor Motion and Ensemble Auditory Data of Emblematic Gestures found in 4 March Excerpts -Audio & Video Capture -Motion Capture (2 trials each of the 4 emblems) -Chamber Musician Gesture Surveys to identify and report quality of displayed emblems -fourMs laboratory (20-30 min. per participant/3-3.5 hours total)</p> <p>-Gesture Judge Panel and Researcher provide Gestural Reviews of Perceived</p> <ul style="list-style-type: none"> Conductor Expressivity and Emblematic Specificity (24 Point Light Display clips) Ensemble Expressivity and Specificity (24 Audio clips) Conductor's Kinesthetic Connection to the Ensemble's Auditory Result (24 Point Light & Audio clips) <p><u>Session One (Calgary, Canada)-</u> Collect Sound Tracing Data of Conductors Creating Gestures to 8 Emblematic Sounds extracted from 4 March Excerpts. -Conductors will pre-listen to all 8 sounds and imagine they can create the sound with their baton and right hand. -8 Sounds randomized (first listen, then create coarticulated gesture with the sound after a 3 sec. pre-count. (3 trials of each of the 8 sounds per conductor). - Motion Capture & Video Capture - Human Performance Laboratory (20-30 min. per participant/3-3.5 hours total)</p> <p><u>Session Two (Both Locations)-</u> Focus Group Accuracy Testing (Randomly Selected from PL1)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Match Point Light Display Emblematic Gestures to Corresponding Sound Emblems <input type="checkbox"/> Match Point Sound Emblems to Corresponding Emblematic Gestures <input type="checkbox"/> Identify correct Coarticulated Gesture and Sound combination from Group of Coarticulated combinations <p>-Conductors/ Chamber Musicians/ & Non-Musician Control Group -fourMs laboratory (1 hour total)</p>	<p>ACTION</p> <p><u>Session One (Both Locations)-</u> Conductor Experimental Group Provide Gestural Reviews of Perceived</p> <ul style="list-style-type: none"> Conductor Expressivity and Emblematic Specificity (24 Point Light Display clips) Ensemble Expressivity and Specificity (24 Audio clips) Conductor's Kinesthetic Connection to the Ensemble's Auditory Result (24 Point Light & Audio clips) <p>(One randomly selected gesture/sound trial from each emblem per conductor will be reviewed) -fourMs laboratory</p> <p><u>Session Two (Both Locations)-</u> Emblematic Specificity and Expressive Gesture Coaching -Motion Capture Technology and Previous Coarticulations used as pedagogical tools -Chamber Musician Written Feedback -Entrance and Exit Questionnaire -fourMs laboratory (1 hour per experimental group conductor/3 hours total)</p>	<p>RESULTS</p> <p><u>Session One (Oslo, Norway)-</u> Collect Conductor Motion and Ensemble Auditory Data of Emblematic Gestures found in 4 March Excerpts -Audio & Video Capture -Motion Capture (2 trials each of the 4 emblems) -Chamber Musician Gesture Surveys to identify and report quality of displayed emblems -four Ms laboratory (20-30 min. per participant/3-3.5 hours total)</p> <p>-Gesture Judge Panel and Researcher provide Gestural Reviews of Perceived</p> <ul style="list-style-type: none"> Conductor Expressivity and Emblematic Specificity (24 Point Light Display clips) Ensemble Expressivity and Specificity (24 Audio clips) Conductor's Kinesthetic Connection to the Ensemble's Auditory Result (24 Point Light & Audio clips) <p><u>Session One (Calgary, Canada)-</u> Collect Sound Tracing Data of Conductors Creating Gestures to 8 Emblematic Sounds extracted from 4 March Excerpts. -Conductors will pre-listen to all 8 sounds and imagine they can create the sound with their baton and right hand. -8 Sounds randomized (first listen, and then create coarticulated gesture with the sound after a 3 sec. pre-count. (3 trials of each of the 8 sounds per conductor). - Motion Capture & Video Capture - Human Performance Laboratory (20-30 min. per participant/3-3.5 hours total)</p> <p><u>Session Two (Both Locations)-</u> Focus Group Accuracy Testing (Identical to PL2 Test randomized)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Match Point Light Display Emblematic Gestures to Corresponding Sound Emblems <input type="checkbox"/> Match Point Sound Emblems to Corresponding Emblematic Gestures <input type="checkbox"/> Identify correct Coarticulated Gesture and Sound combination from Group of Coarticulated combinations <p>-Conductors/ Chamber Musicians/ & Non-Musician Control Group -fourMs laboratory (1 hour total)</p> <p><u>Session Three (Both Locations)-</u> Results/ Wrap-up Interview with Conductor Participants -Reveal results from Accuracy Tests, Gesture Surveys, Gestural Reviews and Entrance/Exit Questionnaire -Audio and Video Capture -Office 319 (1 hour per conductor) by appointment</p>
UNFREEZING	CHANGING	REFREEZING

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graph TD
    UNFREEZING --> CHANGING
    CHANGING --> REFREEZING
    REFREEZING --> UNFREEZING
    
```

After this movement is smoothly established, move only one arm at a time. Then switch arms with each repetition. These are wonderful movements to do prior to getting on the podium to conduct, before teaching a class or giving a presentation. Many conducting gestures require the conductor to be grounded to the floor and visually stable in moments where the conducting plane or acceleration of the movement changes substantially, like with abrupt or sudden gestures.

3.1.5.4 Maintain a State of Flow in Your Body, with Expressive Arms

(Øvelse 4-Vektskifte & Øvelse 8- Ball) Evenly distribute the body's weight between each leg and stand with the feet shoulder width apart. Slowly begin to transfer this weight over to one leg. When the majority of the weight is resting on one leg, gradually begin to transfer the body's full weight onto the other leg. Gently continue this movement and observe the weight as it travels into the foot, the heel, and then presses back through the centre of the body and to the other side. While moving from side to side, bring the hands in front of the body and form a three-dimensional ball with the fingers. Move the ball around in the space. Create, mold and shape the ball as it moves around. Experiment with this ball and allow it to travel higher or lower in the three-dimensional space in front of the body. Change the size and the weight of the ball as it travels. For example, it can be large and heavy, or small and light. Vary the speed in which the ball travels. Finally, bring the ball to the body's centre and throw it into the air to release it. This particular movement series encourages physical visualization and interaction with weight and size concepts connected to the expressive smooth engagement of the arms. Many conducting gestures involve fluid arm movement.

3.1.5.5 Sagittal Plane Energy Shifts as Your Body Transfers Weight

Step back and take a wide vertical stance with one leg behind the other. Begin with the body's weight in the back part of each foot below the ankle. Allow the weight to travel through

the legs, hips, trunk of the body, and extend out the arms. The palm of each hand is turned down. Then draw the body's weight back through the arms with the palm of each hand turned up. Shift the weight back through the hips, legs and into the back part of each foot. Inhale as the weight travels out and exhale as the weight and energy are drawn in. Repeat this exercise a number of times and then shake it out. This exercise can aid a conductor's posture as he moves to cue musical entrances in different locations.

3.1.5.6 Achieve Smooth and Fluid Movement that Glides

(Øvelse 5- Mage, hjerte, panne) Effortlessly float the arms upward with the palms of the hands facing down and observe how the space is empty, yet the arms feel heavy. Then with the palms of the hands facing upward, allow the arms to fall down naturally. Breathe in as the arms lift up and exhale as they fall. Once this motion is established, allow the arms to effortlessly float up higher. Repeat the exercise with one arm and then alternate the engaged arm with each repetition. After several repetitions, bring the arms into the position they take prior to conducting an ensemble and feel how stable the body is to the floor or podium, and then relax. This learning objective exercise and the one discussed in 3.1.5.4, where one strives to maintain a state of flow in his body with expressive arms, can be used to improve the fluidity of a conductor's movement. Particularly, the effortless floating glide of one's arm can be connected to musical moments where the energy of the sound surges forward or backward, or when the volume of the soundscape increases or decreases. It is believed that by introducing the student-conductors to multimodal motion capture technology point-light display learning environments and targeted movement objective dance performance exercises, it will increase the likelihood of a reciprocal relationship, whereby the audio-motor musical performance context creates meaning, which in turn raises the contextual focus and awareness a conductor applies to specific

emblematic movements.

3.1.6 Learning Session Two

TMS, or transcranial magnetic stimulation studies have revealed practice-induced training periods, where actions were observed, as well as training periods where participants concurrently observed and performed motor acts, improved motor learning and aided the formulation of motor memory (Stefan et al., 2005; Stefan et al., 2008). This idea lends support for utilizing real-time motion capture video feedback with conductors. Here, they can observe their point-light display videos while performing to increase their gestural learning potential, which remains an essential part of the artistic communication and craft of their unique musical performances.

In Learning Session Two, each participant received private emblematic and expressive conducting coaching with the researcher for a total of one hour. Here, previously collected, coarticulated motion capture and audio clips, video technology and semi-professional musician feedback were used as instructional tools to raise awareness, expand, refine and experiment with the technical movement aspects of emblematic gesture as it related to the aural and kinesthetic perceptions of the ongoing chamber performance. Each participant was allotted twenty minutes to visually study the scores of the four musical excerpts, then he or she performed four trials of each excerpt with the chamber musicians. The researcher observed the conducting practice of each conductor, and gave immediate targeted feedback to improve each conductor's movement and technique. In these instructional moments, the researcher frequently used analogies to help each participant garner a deeper understanding of the targeted practices under discussion. Each conductor completed an entrance and exit questionnaire before and after the session to help facilitate self-reflection (view Appendix S for the self-evaluation data). Each chamber musician

gave feedback regarding his or her perception of the quality of the emblems displayed by each conductor contained within each of the four excerpts (view Appendix U for the template and Appendix V for the resulting data). While not mandatory, each chamber musician was also encouraged to record qualitative feedback regarding each conductor's improvement and progress, or lack thereof, contained within each excerpt (view Appendix T for the feedback data). This study's complete research design can be understood using Table 3.2 on page 52. Specific details concerning all of the pre-learning, post-learning and learning sessions have been included for both research locations.

3.1.7 Post-Learning Session Three Wrap-Up Interview

Each of the twelve conducting participants met with the researcher for a duration of forty-five minutes to one hour, to discuss and reflect upon his learning discoveries that occurred over the course of the study. In doing so, the researcher was also able to collect each participant's feedback regarding specific sessions. Each undergraduate student-conductor was given an opportunity to reflect on his experience interacting with motion capture technology, asked to briefly discuss his thoughts pertaining to the three parts contained within the accuracy test, and most importantly, answer questions related to his personal conducting philosophies connected to the execution of his craft. All of the interviews were audio recorded with a Blue Yeti USB microphone and the Audacity 1.3 software program and digitally video recorded with a Sony DCR-HC38 Handycam onto mini DV tapes for transcription purposes only.

The interview transcription symbols used in this study were either similar or identical to the glossary of transcription symbols standardized by Gail Jefferson, the co-founder of conversational analysis research (view Appendix X for the list of interview transcription symbols). Specific non-verbal elements of the conversation are included such as laughter and

silence, alongside verbalization indicators that consider acoustic pronunciation properties of emphasized syllables. Individuals often encounter many problems to produce coherent, grammatically correct speech. These were coined by Jefferson (1974) as ‘production’ errors. The abovementioned author also points out that individuals make ‘interactional’ errors or mistakes made when speaking to another co-participant (or researcher). In this study, both types of errors were transcribed verbatim, or word for word, to maintain the conversational integrity, content and full context of the verbal communication that occurred between each undergraduate conducting participant and the researcher. For example, the verbalized nuances contained within each interview conversation were deemed important and subsequently included in all twelve of the transcripts, located in Appendix Y. Words typically thought to have little or no significance to the conversation were disclosed in each transcription because, for example:

While the word ‘UH’ is generally seen as a trivial, haphazard occurrence in spoken English, or, worse as a matter of communicative incompetence, it is in fact to be understood as deeply implicated in the competence required for and displayed in the conduct of interaction. (Jefferson, 1974, p. 199)

The realization that all verbalizations contribute to the deeply implicated interaction involved when two or more individuals communicate, led to the decision that all sounds uttered - including words with ‘sloppy pronunciation’, or incomplete words, sounds, or phrases - would be transcribed and “treated as a serious resource in the construction of interaction” between the researcher and each participant (Jefferson, 1978, p. 139). Furthermore, the conversational turn-taking and overlapping speech patterns that occurred between the researcher and each participant in the wrap-up interviews were systematically preserved in the transcripts. This approach was textually recorded in a manner quite similar to the method outlined by Sacks, Schegloff and Jefferson (1974) in that the onset or point of overlap in the dialogue was reflected simply without the bracket symbol, which is implicated already in the vertical alignment of the text. Their

model or systematic turn-taking in conversation was adopted for a number of reasons. One, it accounts for conversational situations or brief occurrences where more than one speaker is speaking at the same time. Two, it considers transitions between one speaker to the next with or without a silence or overlap, and three, it provides a framework for handling both discontinuous and continuous speaking patterns.

Chapter Four will discuss quantitative and qualitative results and the with-in method triangulations as well as the between-method triangulations performed.

Chapter 4: Results

As described in Jick's (1979) article concerning the process of triangulating mixed methods research, "with-in method" triangulation involves cross-checking for internal consistency and reliability, while "between-method" triangulation looks for convergence or agreement yielded in two methods. These triangulations can be employed to test the degree of external validity and cross validation of congruent and comparable data. For example, using field observations or participant interviews to strengthen statistical results (Vidich & Shapiro, 1955; Reiss, 1968; McCall & Simmons, 1969; Diesing, 1971; Sieber, 1973). The present study employed both with-in method and between-method triangulation to capture a more complete, holistic and contextual portrayal of the interaction between the student-conductor's gesture and the ensemble's sound.

Looking at the data in this manner has enhanced my belief that the results presented are valid and not a methodological artifact (Bouchard, 1976, p. 268). This was done to uncover unique variances and pedagogical themes, which otherwise may not have been revealed using a single quantitative or qualitative method. The results of this study align with Jick's observation, that qualitative methods, in particular, can play a prominent role by eliciting data and suggesting conclusions to which other methods would be blind. In this study, triangulation was used to examine the same phenomenon from multiple perspectives, and to allow new ideas concerning the perception of sounds, gestures and sonic-objects to emerge. This led to a synthesis or integration of perceptual theories. Triangulation is similar or analogous to the way in which many conductors analyze a musical score. This chapter will discuss the with-in method quantitative and qualitative triangulations, as well as the between-method triangulations.

4.1 With-In Method Quantitative Triangulations

The main purpose of this doctoral research project was to explore the congruency or lack thereof between an ensemble's collective sound production and the conductor's displayed gestural palette. It was hypothesized that emblematic conducting improvements increase the likelihood of an improved ensemble sound result in salient moments. The expert panel evaluations of the sonic-object (gesture and sound) clips, point-light (gesture) clips and sound clips, and the emblem identification accuracy test results provided a clear picture as to the Oslo conductors' progress. This was done to verify the perceived gestural improvements of the conductors and the perceived auditory improvements made by the musicians.

The mean results of the expert panel's evaluations regarding the congruency of coarticulated gesture-sounds and each Oslo conductor's point-light expressivity and specificity improvements will be discussed. The ensemble's sound expressivity and emblematic specificity improvements from Pre-Learning Session One to Post-Learning Session One will also be discussed. The emblem identification results collected from both locations regarding pure emblems, and pure and combined emblems in Pre-Learning Session Two and Post-Learning Session Two will also be discussed.

4.1.1 Pre-Learning Session One and Post-Learning Session One Expert Panel Evaluation Findings

Mean values were calculated to assess the researcher's and expert panel's collective evaluations of all six Oslo conductors. Here, blind judging was implemented with both the control group and experimental group. Point-light clips, sound clips and coarticulated clips were extracted and isolated to maintain each participant's anonymity. The mean values were calculated for Excerpt One through Excerpt Four to analyze both the ensemble and conductor's expressivity and emblematic specificity, as well the conductor's kinesthetic connection to the

ensemble's auditory result, referred to as CKC_EAR. The tables in this section display the aggregate mean values from the expert panel Likert continuum evaluation data gathered before and after the learning sessions.

The pedagogical methods employed during Excerpt One's training of *Washington Grays March* were overall useful in increasing gestural expressivity and the ensemble's sound expressivity. Both the control and experimental group were able to perform and respond to the specific press and glide emblems contained in Excerpt One. Table 4.1.1 and Table 4.2.1 display these findings. The experimental group's point-light gestural expressivity and ensemble's sound expressivity, as evaluated by the expert panel, showed an improvement after the learning sessions. Two control group members showed improvements as well. With such a small sample size it is difficult to ascertain statistical significance. Thus, all statements in the following sections about improvements in performance as a result of training and/or differences between the groups in the performance assessments are based on a rough examination of the mean data for each conductor, not statistical analysis. As a consequence, statements regarding improvements in performance should be read and interpreted with caution. Further investigation or between-method triangulation of this improvement trend was performed to compare congruent findings discovered in the qualitative results.

**Table 4.1.1: Excerpt One Conductor Point-Light Expressivity (Gesture)
Expert Panel Mean Evaluations**

Conductor	Pre-Learning Mean	Post-Learning Mean
One (E)	2.750	3.232
Two (E)	2.714	3.464
Three (C)	3.161	3.339
Four (C)	3.393	3.143
Five (C)	3.179	3.804
Six (C)	3.268	3.714

The experimental group conductors are indicated in each table with the letter (E) and the control group conductors are labeled with a letter (C).

Table 4.2.1: Excerpt One Ensemble Expressivity (Sound) Expert Panel Mean Evaluations

Conductor	Pre-Learning Mean	Post-Learning Mean
One (E)	2.196	2.554
Two (E)	3.036	3.696
Three (C)	3.036	2.696
Four (C)	2.768	2.982
Five (C)	3.143	3.643
Six (C)	3.357	3.768

The ensemble's sound specificity for the experimental group as evaluated by the expert panel, showed a similar improvement trend after the learning sessions. Each conductor group's point-light gestural emblematic specificity as evaluated by the expert panel, also showed Likert continuum increases after the learning sessions. The learning sessions employed in Excerpt One addressed expressivity in a manner that allowed the student-conductors to improve. This was not the case however, for the point-light emblematic specificity of gesture (view Table 4.3.1 and Table 4.4.1).

Table 4.3.1: Excerpt One Conductor Point-Light Emblematic Specificity (Gesture) Expert Panel Mean Evaluations

Conductor	Pre-Learning Mean	Post-Learning Mean
One (E)	2.875	2.982
Two (E)	2.882	3.196
Three (C)	3.107	3.250
Four (C)	2.821	3.018
Five (C)	3.518	4.018
Six (C)	3.732	3.964

**Table 4.4.1: Excerpt One Ensemble Emblematic Specificity (Sound)
Expert Panel Mean Evaluations**

Conductor	Pre-Learning Mean	Post-Learning Mean
One (E)	2.571	3.143
Two (E)	3.339	3.518
Three (C)	3.304	2.982
Four (C)	2.821	3.393
Five (C)	3.625	3.768
Six (C)	3.607	3.821

The CKC_EAR or perceived conductor's kinesthetic connection to the ensemble's auditory result expert panel evaluation showed an increase in the Likert continuum for both conducting groups after the learning sessions (view Table 4.5.1). The experimental group will be investigated further in the between-method triangulation.

Table 4.5.1: Excerpt One Conductor's Kinesthetic Connection to the Ensemble's Auditory Result (Coarticulated Gesture & Sound) Expert Panel Mean Evaluations

Conductor	Pre-Learning Mean	Post-Learning Mean
One (E)	2.893	3.357
Two (E)	3.179	3.536
Three (C)	3.179	2.525
Four (C)	3.214	3.661
Five (C)	3.250	4.196
Six (C)	3.554	3.750

For Excerpt Two's training of *Barnum and Bailey's Favourite* there were improvements in gestural expressivity, but there did not appear to be improvements in sound expressivity (view Table 4.1.2 and Table 4.2.2). The experimental group's point-light gestural expressivity, as evaluated by the expert panel, showed an improvement trend.

**Table 4.1.2: Excerpt Two Conductor Point-Light Expressivity (Gesture)
Expert Panel Mean Evaluations**

Conductor	Pre-Learning Mean	Post-Learning Mean
One (E)	2.839	3.607
Two (E)	3.089	3.446
Three (C)	3.643	3.482
Four (C)	3.179	3.143
Five (C)	3.875	3.536
Six (C)	3.411	3.857

Table 4.2.2: Excerpt Two Ensemble Expressivity (Sound) Expert Panel Mean Evaluations

Conductor	Pre-Learning Mean	Post-Learning Mean
One (E)	2.911	2.764
Two (E)	3.339	3.429
Three (C)	3.464	3.000
Four (C)	3.179	3.571
Five (C)	3.786	3.607
Six (C)	3.196	4.000

Likewise, the training methods seemed to increase the experimental group's point-light gestural emblematic specificity, but not the ensemble's emblematic specificity of sound (view Table 4.3.2 and Table 4.4.2). The experimental group's gestural expressivity and point-light gestural emblematic specificity connected to the ensemble's respective auditory soundscape will be reviewed and investigated further in the between-method triangulation.

**Table 4.3.2: Excerpt Two Conductor Point-Light Emblematic Specificity (Gesture)
Expert Panel Mean Evaluations**

Conductor	Pre-Learning Mean	Post-Learning Mean
One (E)	3.071	3.786
Two (E)	3.411	3.500
Three (C)	3.321	3.375
Four (C)	2.857	2.893
Five (C)	3.321	4.054
Six (C)	3.714	3.750

**Table 4.4.2: Excerpt Two Ensemble Emblematic Specificity (Sound)
Expert Panel Mean Evaluations**

Conductor	Pre-Learning Mean	Post-Learning Mean
One (E)	2.696	3.357
Two (E)	3.339	3.357
Three (C)	3.125	3.143
Four (C)	3.411	3.732
Five (C)	3.989	3.946
Six (C)	2.696	3.607

For the CKC_EAR or perceived conductor's kinesthetic connection to the ensemble's auditory result expert panel evaluation, a large improvement trend in the Likert continuum was observed for those who received the training as opposed to those who did not (view Table 4.5.2).

Table 4.5.2: Excerpt Two Conductor's Kinesthetic Connection to the Ensemble's Auditory Result (Coarticulated Gesture & Sound) Expert Panel Mean Evaluations

Conductor	Pre-Learning Mean	Post-Learning Mean
One (E)	3.071	3.643
Two (E)	3.482	3.982
Three (C)	3.018	3.304
Four (C)	3.696	3.429
Five (C)	4.232	3.821
Six (C)	3.321	4.071

With respect to Excerpt Three, *March Op. 99*, the experimental conductor group point-light gestural expressivity, as judged by the expert panel, revealed mean differences and an improvement trend. This was also the case concerning the ensemble's sound expressivity (view Table 4.1.3 and Table 4.2.3).

Table 4.1.3: Excerpt Three Conductor Point-Light Expressivity (Gesture) Expert Panel Mean Evaluations

Conductor	Pre-Learning Mean	Post-Learning Mean
One (E)	2.661	3.196
Two (E)	3.071	4.000
Three (C)	2.625	3.250
Four (C)	2.750	3.036
Five (C)	3.929	4.161
Six (C)	3.125	3.839

Table 4.2.3: Excerpt Three Ensemble Expressivity (Sound) Expert Panel Mean Evaluations

Conductor	Pre-Learning Mean	Post-Learning Mean
One (E)	2.429	2.929
Two (E)	3.071	3.696
Three (C)	2.839	2.500
Four (C)	2.804	3.196
Five (C)	3.293	4.304
Six (C)	3.054	3.571

There was an improvement increase of gestural point-light specificity exhibited in Excerpt Three for the experimental group relative to the control group. Both Excerpt Two and Three's pedagogical methods seem effective in training a conductor's emblematic gestural specificity more than Excerpt One (view Table 4.3.3).

Table 4.3.3: Excerpt Three Conductor Point-Light Emblematic Specificity (Gesture)
Expert Panel Mean Evaluations

Conductor	Pre-Learning Mean	Post-Learning Mean
One (E)	3.089	3.786
Two (E)	3.161	4.125
Three (C)	3.125	3.536
Four (C)	2.750	2.321
Five (C)	3.625	4.125
Six (C)	3.464	3.696

With such increases in the conductor groups' mean values concerning the ensemble's emblematic specificity displayed in Excerpt Three, it is difficult to deduce an improvement trend (view Table 4.4.3). The qualitative learning session data collected from the musicians and the conductors should indicate whether or not the pedagogical methods employed were useful.

Table 4.4.3: Excerpt Three Ensemble Emblematic Specificity (Sound)
Expert Panel Mean Evaluations

Conductor	Pre-Learning Mean	Post-Learning Mean
One (E)	2.589	3.000
Two (E)	2.875	3.911
Three (C)	3.018	2.375
Four (C)	2.625	3.571
Five (C)	3.043	4.089
Six (C)	2.679	3.625

Similar to Excerpt Two, Excerpt Three's expert panel evaluation of the CKC_EAR or perceived conductor's kinesthetic connection to the ensemble's auditory result revealed an increase in the Likert continuum suggesting an improvement trend in the congruency between gesture and sound (view Table 4.5.3).

Table 4.5.3: Excerpt Three Conductor's Kinesthetic Connection to the Ensemble's Auditory Result (Coarticulated Gesture & Sound) Expert Panel Mean Evaluations

Conductor	Pre-Learning Mean	Post-Learning Mean
One (E)	3.161	3.482
Two (E)	3.321	4.143
Three (C)	3.339	2.964
Four (C)	3.500	3.411
Five (C)	3.589	4.143
Six (C)	2.786	4.054

In Excerpt Four, *Florentiner March*, both of the conductor groups exhibited similar improvements in their point-light expressivity and point-light emblematic specificity mean values as judged by the expert panel. While neither group's sound expressivity changed that much, the expert panel evaluations of the ensemble's sound specificity showed an improvement trend. As the execution of the punch gesture improved, the ensemble's emblematic specificity also improved (view Table 4.1.4, Table 4.2.4, Table 4.3.4 and Table 4.4.4). Repeated training without pedagogical learning appears to be sufficient to cause significant improvement of both the ensemble's expressivity and gestural expressivity. The effect of training however, was more present in the expert panel's evaluation of the ensemble's sound result concerning emblematic specificity (view Table 4.4.4).

Table 4.1.4: Excerpt Four Conductor Point-Light Expressivity (Gesture) Expert Panel Mean Evaluations

Conductor	Pre-Learning Mean	Post-Learning Mean
One (E)	3.136	3.286
Two (E)	2.554	3.214
Three (C)	2.786	3.089
Four (C)	3.125	3.304
Five (C)	3.196	3.804
Six (C)	2.536	3.804

Table 4.2.4: Excerpt Four Ensemble Expressivity (Sound) Expert Panel Mean Evaluations

Conductor	Pre-Learning Mean	Post-Learning Mean
One (E)	3.071	2.804
Two (E)	3.125	3.196
Three (C)	2.661	2.964
Four (C)	2.946	2.893
Five (C)	3.196	3.321
Six (C)	2.750	3.482

Table 4.3.4: Excerpt Four Conductor Point-Light Emblematic Specificity (Gesture) Expert Panel Mean Evaluations

Conductor	Pre-Learning Mean	Post-Learning Mean
One (E)	3.339	3.643
Two (E)	3.179	3.500
Three (C)	2.821	3.393
Four (C)	3.036	3.375
Five (C)	3.107	3.911
Six (C)	2.964	3.911

Table 4.4.4: Excerpt Four Ensemble Emblematic Specificity (Sound) Expert Panel Mean Evaluations

Conductor	Pre-Learning Mean	Post-Learning Mean
One (E)	3.036	3.607
Two (E)	3.214	3.375
Three (C)	2.732	2.929
Four (C)	2.857	2.821
Five (C)	3.179	3.161
Six (C)	2.679	4.071

While the punch gesture remained effective across the learning sessions, it is believed the awareness of the gesture's weight-related movement pedagogy influenced a greater dynamic contrast in the ensemble's sound that was ranked significantly higher in the Likert continuum. The control group's ensemble emblematic specificity of sound remained unchanged.

The expert panel's evaluation of the perceived conductor's kinesthetic connection to the ensemble's auditory result revealed that both conductor groups made improvements (view Table 4.5.4).

Table 4.5.4: Excerpt Four Conductor's Kinesthetic Connection to the Ensemble's Auditory Result (Coarticulated Gesture & Sound) Expert Panel Mean Evaluations

Conductor	Pre-Learning Mean	Post-Learning Mean
One (E)	3.054	3.554
Two (E)	3.429	3.768
Three (C)	2.857	3.125
Four (C)	3.107	3.179
Five (C)	3.161	3.714
Six (C)	2.929	3.821

4.1.2 Pre-Learning Session Two and Post-Learning Session Two Emblem Identification Test Results

As was mentioned in the literature review, more holistic or Gestalt-like principles of motor action (Klapp & Jagacinski, 2011) may explain why emblematic moments are processed as single audio-action units by musicians. This research suggests this is also the case for the conductor. Point-light (gesture), audio (sound), and sonic-object (gesture-sound) emblem identification test results reveal elements of mutual exclusivity in the selection of sounds as well as gestures. This was also the case for the press, punch, dab, and glide sonic-objects. Consistent with top-down audio-motor processing models, a degree of perceptual constancy was observed regardless of the presented order and or groupings of the sounds or gestures displayed. The data augments embodied cognition (Leman, 2008) and covert imitation research (Wilson & Knoblich, 2005) that posits strong audio-motor couplings (Kohler et al., 2002).

4.1.2.1 Sound Selection Accuracy Part One

The conductors were most accurate overall at correctly identifying sound 1 linked to the

press emblem, sound 6 linked to the dab emblem, and sound 4 connected to the punch emblem. Similarly, the musicians were most accurate in correctly identifying sound 1, sound 4, sound 6 and sound 8 linked to the glide emblem. These conclusions are based on an eyeball examination of the mean data because statistical comparisons across the sounds and emblems were not conducted. For this reason, these suggestions should be interpreted and read with caution.

4.1.2.2 Gestural Selection Accuracy Part Two

The conductors were most accurate overall in correctly identifying the press emblem linked to sound 1, the punch emblem linked to sound 4, and the dab and press punch emblems linked to sound 6 and sound 5 respectively. It is important to note that the audio-action sound 1 press emblem, sound 4 punch emblem and sound 6 dab emblem all received superior mean identification values whether the conductors were selecting the gesture that best fit with the sound or the sound that best fit with the gesture. The order the gestures or sounds were presented had no significance on one's ability to perform the task for the conductors or the musicians. These conclusions are based on an eyeball examination of the mean data because statistical comparisons across the sounds and emblems were not conducted. For this reason, these suggestions should be interpreted and read with caution.

The musicians were most accurate overall at identifying the press emblem linked to sound 1, the press punch emblem linked to sound 5, the punch emblem connected to sound 4, and the dab emblem linked to sound 6. The audio-action sound 1 press emblem, sound 4 punch emblem, and sound 6 dab emblem all had high mean identification values. As stated earlier, these conclusions are based on an eyeball examination of the mean data because statistical comparisons across the sounds and emblems were not conducted. For this reason, these suggestions should be interpreted and read with caution.

4.1.2.3 Pure Emblem Accuracy Part One & Part Two

Upon aggregating the mean identification values of the four pure emblems in Part One and Part Two, matching gestures to sounds and vice versa, a two-way mixed analysis of variance with group as a between-subject factor and time as a within-subject factor was performed for the conductor experimental group and conductor control group data. The ANOVA revealed no significant statistical differences in either group's ability to recognize and identify the correct pure emblem after the learning sessions. Table 4.5.5 displays the quantitative results. With respect to the dab, there was no difference between the mean values of the groups. The pure emblem press, punch, and dab were all easy for both conductor groups to discern, recognize and match. Overall, these data suggest that the training the experimental conductors received did not influence the performance on this task.

**Table 4.5.5: Pure Emblems (Part I & II) by Conductor Groups (ANOVA)
Mean Accuracy of Matching Gestures to Sounds and Vice Versa**

Pure Emblem	Pre/ Post Learning	Conductor Control [mean (SD)]	Conductor Experimental [mean (SD)]	Time Effect F (df) [P]	Group Effect F (df) [P]	Interaction F (df) [P]
Press	Pre	.8350 (.2182)	.9800 (.0490)	.755 (1,10) [.405]	3.060 (1,10) [.111]	.755 (1,10) [.405]
	Post	.9167 (.1291)	.9800 (.0490)			
Punch	Pre	.8350 (.1860)	.8767 (.1118)	.021 (1,10) [.887]	.417 (1,10) [.533]	.021 (1,10) [.887]
	Post	.8133 (.2471)	.8767 (.1937)			
Dab	Pre	.867 (.1633)	.867 (.1211)	0.000 (1,10) [1.000]	.604 (1,10) [.455]	.400 (1,10) [.541]
	Post	.917 (.0983)	.817 (.2714)			
Glide	Pre	.7300 (.2010)	.6467 (.1645)	1.832 (1,10) [.206]	.992 (1,10) [.343]	.073 (1,10) [.792]
	Post	.8133 (.1899)	.7717 (.1217)			

In a broader context, Part One and Two's pure emblem identification mean accuracy scores were aggregated for each group that did not receive training. A two-way mixed analysis of variance with group as a between-subject factor and time as a within-subject factor was performed for the conductor control, musician and non-musician group data (see below for a description of the post hoc test). Table 4.5.6 displays the quantitative results for each pure emblem. A statistically significant between-subjects group effect was found for the press, punch, dab, and glide. Also, a significant interaction was found with respect to time and control for both the dab and glide emblem. The non-musician group's ability to match gestures to sounds and sounds to gestures was markedly lower than the musician and conductor control group. While the non-musician group's mean values decreased, the musician and conductor control groups both increased. The non-musicians did not find the pure emblems as straightforward or inherent to discern and recognize as the musician and conductor groups.

The Part One and Two post hoc tests or pairwise comparisons performed with a Bonferroni adjustment for the press, dab and glide's between-subjects group effect showed the mean values of the conductor control group and the mean values of the non-musician group were reliably different from one another. It also revealed the mean values of the musician group and the mean values of the non-musician group were reliably different from one another. The post hoc tests or pairwise comparisons performed with a Bonferroni adjustment for the punch's between-subjects group effect showed the mean values of the musician group and the mean values of the non-musician group were reliably different from one another.

Table 4.5.6: Pure Emblems (Part I & II) by Conductor Control, Musician & Non-Musician Groups (ANOVA) Mean Accuracy of Matching Gestures to Sounds and Vice Versa

Pure Emblem	Pre/ Post Learning	Conductor Control [mean (SD)]	Musicians [mean (SD)]	Non-Musicians [mean (SD)]	Time Effect F (df) [P]	Group Effect F (df) [P]	Interaction F (df) [P]
Press	Pre	.8350 (.2182)	.8467 (.2188)	.6721 (.1993)	2.669 (1,57) [.108]	11.940 (2,57) [.047 x10 ⁻³]	2.295 (2,57) [.110]
	Post	.9167 (.1291)	.9119 (.1536)	.6533 (.1765)			
Punch	Pre	.8350 (.1860)	.7867 (.1735)	.7212 (.2381)	.206 (1,57) [.651]	4.903 (2,57) [.011]	2.397 (2,57) [.100]
	Post	.8133 (.2471)	.8881 (.1238)	.6909 (.1800)			
Dab	Pre	.8667 (.1633)	.7095 (.2385)	.6272 (.2096)	2.862 (1,57) [.096]	10.950 (2,57) [.095 x10 ⁻³]	4.416 (2,57) [.016]
	Post	.9167 (.0983)	.8571 (.1720)	.6030 (.1811)			
Glide	Pre	.7300 (.2010)	.7338 (.1904)	.6606 (.1931)	2.906 (1,57) [.094]	10.065 (2,57) [.018 x10 ⁻²]	4.353 (2,57) [0.17]
	Post	.8133 (.1899)	.8881 (.1363)	.6224 (.1884)			

4.1.2.4 All Emblems (Pure & Combined) Accuracy Part One & Part Two

Upon aggregating the mean identification data of the pure and combined emblem values for each emblem in Part One and Part Two, matching gestures to sounds and vice versa, a two-way mixed analysis of variance with group as a between-subject factor and time as a within-subject factor was performed for the conductor experimental group and conductor control group data. The ANOVA revealed no significant statistical differences in either group's ability to recognize and identify the correct emblem after the learning sessions, except for the press emblem which showed a borderline time effect. Overall, these data suggest that the training the experimental conductors received did not influence the performance on this task. Table 4.6.5 displays the quantitative results for each emblem.

Table 4.6.5: All Emblems (Pure and Combined) (Part I & II) by Conductor Groups (ANOVA) Mean Accuracy of Matching Gestures to Sounds and Vice Versa

Emblem (Pure & Combined)	Pre/ Post Learning	Conductor Control [mean (SD)]	Conductor Experimental [mean (SD)]	Time Effect F (df) [P]	Group Effect F (df) [P]	Interaction F (df) [P]
Press	Pre	.6333 (.1133)	.6917 (.1428)	4.869 (1,10) [.052]	.969 (1,10) [.348]	.0311 (1,10) [.863]
	Post	.7233 (.1027)	.7683 (.0801)			
Punch	Pre	.6200 (.1008)	.6117 (.1109)	2.078 (1,10) [.180]	.174 (1,10) [.685]	1.550 (1, 10) [.242]
	Post	.6250 (.0887)	.6800 (.1223)			
Dab	Pre	.6367 (.0864)	.7017 (.1216)	1.101 (1,10) [.319]	.447 (1, 10) [.519]	.347 (1, 10) [.569]
	Post	.7317 (.1663)	.7283 (.1264)			
Glide	Pre	.5567 (.1013)	.5700 (.1077)	3.548 (1,10) [.089]	.392 (1,10) [.545]	.042 (1,10) [.842]
	Post	.6183 (.0585)	.6467 (.0647)			

In a broader context, Part One and Two's pure and combined emblem identification values for each emblem were aggregated for each group that did not receive training. A two-way mixed analysis of variance with group as a between-subject factor and time as a within-subject factor was performed for the conductor control, musician and non-musician group data. Table 4.6.6 displays the quantitative results for each emblem. A significant within-subjects time effect was revealed for the dab, where both the conductor control and musician group improved from the pre-test to the post-test without training. A significant between-subjects group effect for the glide was also discovered. The Part One and Two post hoc tests or pairwise comparisons performed with a Bonferroni adjustment for the glide's between-subjects group effect showed the mean values of the musician group and the mean values of the non-musician group were statistically different from one another.

Compared to the pure emblems, both of the conductor groups, musicians and non-musicians all found the pure and combined emblems more difficult to discern, recognize and match.

Table 4.6.6: All Emblems (Part I & II) by Conductor Control, Musician & Non-Musician Groups (ANOVA) Mean Accuracy of Matching Gestures to Sounds and Vice Versa

Emblem (Pure & Combined)	Pre/ Post Learning	Conductor Control [mean (SD)]	Musicians [mean (SD)]	Non- Musicians [mean (SD)]	Time Effect F (df) [P]	Group Effect F (df) [P]	Interaction F (df) [P]
Press	Pre	.6333 (.1133)	.6748 (.1413)	.6394 (.1682)	2.588 (1,57) [.113]	2.946 (2,57) [.061]	2.648 (2,57) [.079]
	Post	.7233 (.1027)	.7310 (.0960)	.6142 (.1298)			
Punch	Pre	.6200 (.1008)	.6295 (.1408)	.6055 (.1446)	1.930 (1,57) [.170]	1.090 (2,57) [.343]	.762 (2,57) [.471]
	Post	.6250 (.0887)	.6957 (.1049)	.6297 (.1346)			
Dab	Pre	.6367 (.0864)	.6310 (.1555)	.5948 (.1656)	8.377 (1,57) [.005]	2.257 (2,57) [.114]	1.723 (2,57) [.188]
	Post	.7317 (.1663)	.7124 (.1048)	.6139 (.1407)			
Glide	Pre	.5567 (.1013)	.5971 (.1396)	.5685 (.1245)	2.231 (1,57) [.141]	5.167 (2,57) [.009]	1.815 (2,57) [.172]
	Post	.6183 (.0585)	.6805 (.1311)	.5579 (.1195)			

4.1.2.5 Pure Emblem Accuracy Part Three

Upon aggregating the mean identification data for each of the pure emblems in Part Three, that involved identifying the most congruent sonic-object from a group of sonic-objects, a two-way mixed analysis of variance with group as a between-subject factor and time as a within-subject factor was performed for the conductor experimental group and conductor control group data. The ANOVA revealed no significant statistical differences in either group's ability to recognize and identify the most congruent pure emblem sonic-object after the learning sessions. Table 4.5.7 displays the quantitative results for each pure emblem. With respect to the press,

there was no difference between the mean values of the conductor groups. The sound 1 press emblem and sound 4 punch emblem were easy for both conductor groups to discern and recognize before and after the learning sessions. Overall, these data suggest that the training the experimental conductors received did not influence the performance on this task.

**Table 4.5.7: Pure Emblems (Part III) by Conductor Groups (ANOVA)
Mean Accuracy of Identifying Most Congruent Sonic-Object**

Pure Emblem	Pre/ Post Learning	Conductor Control [mean (SD)]	Conductor Experimental [mean (SD)]	Time Effect F (df) [P]	Group Effect F (df) [P]	Interaction F (df) [P]
Press	Pre	.8333 (.2582)	.8333 (.4082)	0.000 (1,10) [1.000]	0.000 (1,10) [1.000]	0.000 (1,10) [1.000]
	Post	.8333 (.4082)	.8333 (.4082)			
Punch	Pre	.9167 (.2041)	1.000 (0.000)	1.000 (1,10) [.341]	1.000 (1,10) [.341]	1.000 (1,10) [.341]
	Post	1.000 (0.000)	1.000 (0.000)			
Dab	Pre	.4167 (.4916)	1.000 (0.000)	.172 (1,10) [.687]	3.716 (1,10) [.083]	4.310 (1,10) [.065]
	Post	.6667 (.5164)	.8333 (.2582)			
Glide	Pre	.5833 (.4916)	.4167 (.4916)	.912 (1,10) [.362]	.065 (1,10) [.804]	.912 (1,10) [.362]
	Post	.5833 (.4916)	.8333 (.4082)			

The two-way mixed analysis of variance with group as a between-subject factor and time as a within-subject factor of those who did not receive training of the four pure emblems in Part One and Part Two revealed a significant group effect for each emblem and a significant interaction for the dab and glide emblem. The ANOVA performed on Part Three's mean values from identifying the most congruent sonic-object, revealed no statistical group effects or interactions. The sound 4 punch emblem was easy for the conductor groups, musicians and non-musicians to discern, recognize and match. Table 4.5.8 displays the quantitative results.

Table 4.5.8: Pure Emblems (Part III) by Conductor Control, Musician & Non-Musician Groups (ANOVA) Mean Accuracy of Identifying Most Congruent Sonic-Object

Pure Emblem	Pre/ Post Learning	Conductor Control [mean (SD)]	Musicians [mean (SD)]	Non-Musicians [mean (SD)]	Time Effect F (df) [P]	Group Effect F (df) [P]	Interaction F (df) [P]
Press	Pre	.8333 (.2582)	.6190 (.4155)	.6667 (.3680)	1.288 (1,57) [.261]	.771 (2,57) [.467]	1.661 (2,57) [.199]
	Post	.8333 (.4082)	.8333 (.3291)	.6818 (.3495)			
Punch	Pre	.9167 (.2041)	.8333 (.3651)	.8030 (.3046)	2.703 (1,57) [.106]	1.473 (2,57) [.238]	1.198 (2,57) [.309]
	Post	1.0000 (.0000)	.9761 (.1091)	.8181 (.3264)			
Dab	Pre	.4167 (.4916)	.7143 (.4053)	.6363 (.3595)	.924 (1,57) [.340]	.518 (2,57) [.599]	1.155 (2,57) [.322]
	Post	.6667 (.5164)	.6667 (.4282)	.6363 (.3371)			
Glide	Pre	.5833 (.4916)	.6190 (.4445)	.5303 (.3046)	.110 (1,57) [.741]	1.765 (2,57) [.180]	.338 (2,57) [.715]
	Post	.5833 (.4916)	.7143 (.3732)	.5151 (.3183)			

4.1.2.6 All Emblems (Pure & Combined) Accuracy Part Three

Upon aggregating the pure and combined emblem mean identification values for each emblem in Part Three, that involved identifying the most congruent sonic-object from a group of sonic-objects, a two-way mixed analysis of variance with group as a between-subject factor and time as a within-subject factor was performed for the conductor experimental group and conductor control group data. The ANOVA revealed no significant statistical differences in either group's ability to recognize and identify the correct emblem prior to and after the learning sessions, except for the punch emblem which showed a significant with-in subjects time effect. Table 4.6.7 displays the quantitative results for each emblem. Overall, these data suggest that the training the experimental conductors received did not influence the performance on this task.

**Table 4.6.7: All Emblems (Pure and Combined) (Part III) by Conductor Groups (ANOVA)
Mean Accuracy of Identifying Most Congruent Sonic-Object**

Emblem (Pure & Combined)	Pre/ Post Learning	Conductor Control [mean (SD)]	Conductor Experimental [mean (SD)]	Time Effect F (df) [P]	Group Effect F (df) [P]	Interaction F (df) [P]
Press	Pre	.6683 (.1525)	.7300 (.3007)	2.023 (1,10) [.185]	.060 (1,10) [.812]	.209 (1,10) [.657]
	Post	.7917 (.2923)	.7933 (.2313)			
Punch	Pre	.5633 (.1899)	.7533 (.1937)	8.323 (1,10) [.016]	1.683 (1,10) [.224]	1.892 (1,10) [.199]
	Post	.8550 (.1231)	.8567 (.1816)			
Dab	Pre	.5817 (.2948)	.8617 (.1624)	.035 (1,10) [.855]	1.523 (1,10) [.245]	2.221 (1,10) [.167]
	Post	.6683 (.3652)	.7500 (.2532)			
Glide	Pre	.4700 (.2684)	.6400 (.2857)	3.821 (1,10) [.079]	1.216 (1,10) [.296]	.116 (1,10) [.741]
	Post	.6667 (.2996)	.7783 (.2009)			

The pure and combined emblem mean identification values in Part Three were also aggregated for each group that did not receive training. A two-way mixed analysis of variance with group as a between-subject factor and time as a within-subject factor was performed for the conductor control, musician and non-musician group data. Table 4.6.8 displays the quantitative results for each emblem. Like the pure emblem identification in Part One and Two for those that did not receive training, a statistically significant between-subjects group effect was found for the pure and combined emblem mean identification values in Part Three's sound 1 press emblem, sound 4 punch emblem, sound 6 dab emblem, and sound 8 glide emblem. In addition, a significant with-in subjects time effect and an interaction were discovered for the sound 4 punch emblem. The non-musician group's ability to identify congruent sonic-objects was markedly lower than the musician and conductor control group. The post hoc tests or pairwise

comparisons performed with a Bonferroni adjustment for the press and punch's between-subjects group effect showed the mean values of the conductor control group and the mean values of the non-musician group were statistically different from one another. It was also revealed that the mean values of the musician group and the mean values of the non-musician group were reliably different from one another. The post hoc tests or pairwise comparisons performed with a Bonferroni adjustment for the dab and glide's between-subjects group effect showed the mean values of the musician group and the mean values of the non-musician group were also statistically different from one another. The non-musicians did not find the pure and combined emblem coarticulated gesture-sounds as straightforward or inherent to discern and recognize as the musician and conductor groups.

Table 4.6.8: All Emblems (Part III) by Conductor Control, Musician and Non-Musician Groups (ANOVA) Mean Accuracy of Identifying Most Congruent Sonic-Object

Emblem (Pure & Combined)	Pre/ Post Learning	Conductor Control [mean (SD)]	Musicians [mean (SD)]	Non-Musicians [mean (SD)]	Time Effect F (df) [P]	Group Effect F (df) [P]	Interaction F (df) [P]
Press	Pre	.6683 (.1525)	.7271 (.2227)	.5588 (.2491)	1.096 (1,57) [.300]	12.740 (2,57) [.027x10 ⁻³]	1.680 (2,57) [.196]
	Post	.7917 (.2923)	.7995 (.1948)	.5103 (.2019)			
Punch	Pre	.5633 (.1899)	.7567 (.1743)	.6376 (.1993)	5.483 (1,57) [.023]	15.469 (2,57) [.043x10 ⁻⁴]	7.945 (2,57) [.009 x10 ⁻¹]
	Post	.8550 (.1231)	.8462 (.1472)	.5427 (.2026)			
Dab	Pre	.5817 (.2948)	.6595 (.2139)	.5003 (.3062)	.009 (1,57) [.925]	3.942 (2,57) [0.25]	.927 (2,57) [.402]
	Post	.6683 (.3652)	.6438 (.2256)	.4409 (.2715)			
Glide	Pre	.4700 (.2684)	.6057 (.2575)	.4779 (.2616)	2.733 (1,57) [.104]	4.206 (2,57) [.020]	1.397 (2,57) [.256]
	Post	.6667 (.2996)	.6748 (.2564)	.4630 (.2581)			

Overall, the data for this part of the study suggest that the training the experimental conductors received did not influence the performance on this task. There were differences between participants with musical experience (musicians and conductors), but there was no influence of the training on these tasks. The absence of improvement could be due to the fact that the conductors were already performing near ceiling and hence, could not improve any more. The eyeball assessment of the data from the judgments of the performance of the gesture and the sound performance suggests that there was some improvement due to training in performance. Although the judgment data need to be treated with caution because there are few participants and the data was not statistically analyzed, these judgment data seem to be consistent with the results of the qualitative component. The following section will give a brief summary of the within method qualitative findings that support one another.

4.2 With-In Method Qualitative Triangulations

4.2.1 Learning Session One

In Learning Session One, each participant gained a new awareness concerning congruent and incongruent gestural communication. Mixed messages occurred when one's physical expression of movement was not clear. Two foundational factors that influenced gestural improvement were core movements originating from the body's central axis and conductors who used a stable and open stance. Once these two factors were established, the expressive movements of the arms and hands could flow effortlessly in any direction to shape the music.

4.2.2 Learning Session Two Pedagogical Themes & Musician Feedback

The complete Learning Session Two pedagogical report of the researcher's feedback and suggested communication practices given to each experimental group conductor can be referenced in Appendix Q. Each instructional moment addressed by the researcher was chosen

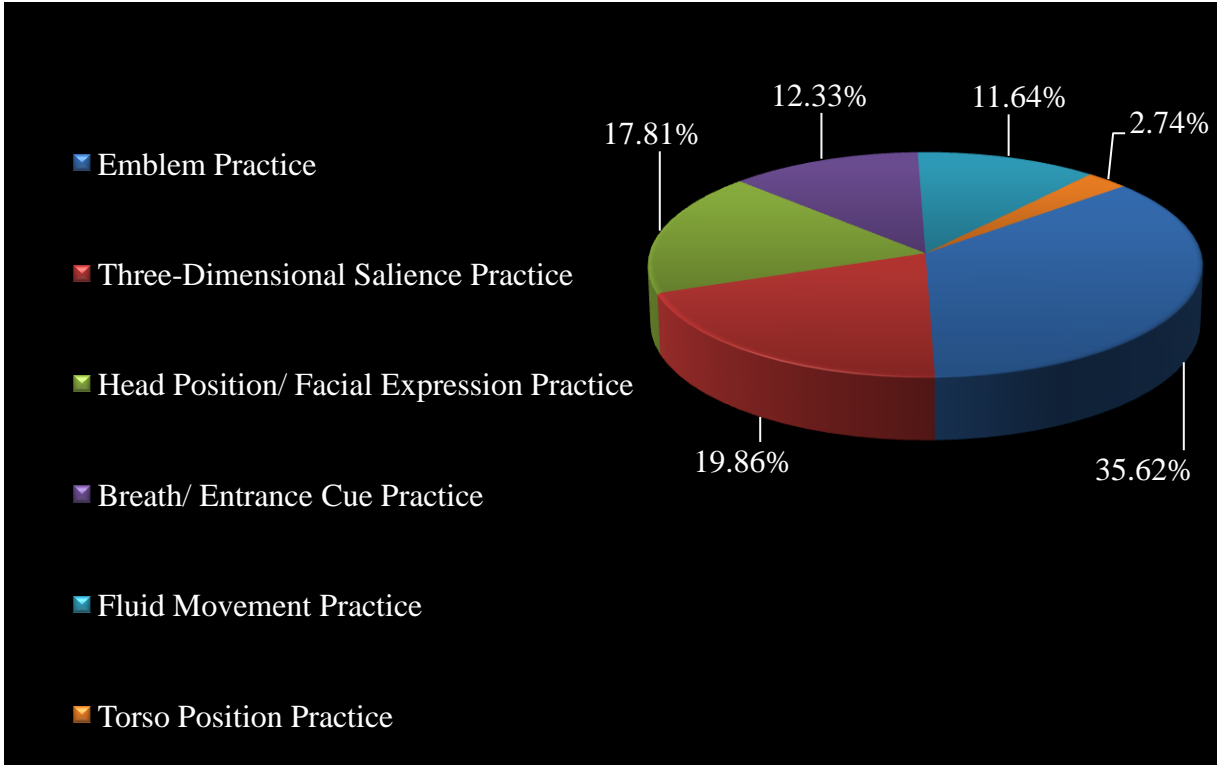
specifically to improve the congruency of the communication between the conductor's gesture and the ensemble's soundscape. All of these moments were recorded and included in the report and coded. Six pedagogical themes emerged from the comprehensive qualitative review: emblem practice, three-dimensional salience practice, head position/ facial expression practice, breath/ entrance cue practice, fluid movement practice and torso position practice.

The pie chart, located in Figure 4.1, graphically displays the percentage each pedagogical focus theme was addressed in relation to the total number of instructional moments discussed with the conductors. The chamber musician qualitative feedback aided the with-in method triangulation of the congruent pedagogies discovered. This review revealed whether the learning methods employed improved each conductor's gestural awareness and technical movement capability. The feedback strands, connected to each pedagogical focus, have been encased in parenthesis. Each strand identifies the conductor that was reviewed, the musician that scribed the comment and the excerpt that was performed. They also help the reader reference comments in Appendix T and validate the necessity of the practices.

4.2.2.1 Emblem Practice

Learning Session Two largely focused on improving emblematic gestures meant to echo the current soundscape with the experimental group conductors. Specifically, this was accomplished by employing a number of pedagogical approaches.

Figure 4.1: Learning Session Two Pedagogical Focus Themes



In some cases, emblem practice was deconstructed. Conductors produced emphatic musical moments void a beat pattern, either with a head nod or by using various left hand gestures. Quieting or eliminating other patterns of movement and encouraging the initiation of gestural ideas solely in the specific moments proved beneficial for several conductors (C2:M5:Ex1, C7:M18:Ex1, C8:M15:Ex1, C10:M14:Ex2, C10:M19:Ex3). Conductors were also instructed to pre-plan movements to reflect the auditory strength of the sounds (C1:M3:Ex4, C1:M6:Ex3, C2:M9:Ex1, C2:M5:Ex2, C8:M18:Ex4). Both the press and glide emblems improved across the conductors. Observational feedback noted these emblems in particular require more than one learning session to master (C1:M8:Ex2, C8:M19:Ex1, C9:M13:Ex2, C9:M11:Ex3, C10:M16:Ex1).

Analogies were frequently used to assist with movement execution. It efficiently

engaged a broader stroke of movement parameters without using technical terms related to acceleration, deceleration and lengthy three-dimensional descriptors. For example, touching a button to turn it on, patting a child on the head, ticking a box with a check mark, or touching the sound with an energetic laser beam were used to help conductors to produce smaller, lighter and more delicate dab emblems (C1:M7:Ex3, C9:M18:Ex3). In this study, these analogies helped correct movements that appeared to jab, stab or grab at the soundscape. The Frederick Fennell-type baseball swing analogy, containing a follow-through motion, aided the experimental group conductors to produce stronger, deeper punch emblems scored for low brass and/or bass drum (C1:M5:Ex2, C2:M7:Ex2, C2:M1:Ex4, C7:M12:Ex4, C7:M14:Ex4, C8:M12:Ex4, C9:M14:Ex1).

4.2.2.2 Three-Dimensional Salience Practice

Another pedagogical focus encouraged the conductors to reflect salient moments by employing salience in their gestures. Usually this was connected to varying or changing the three-dimensional conducting plane and/or vertical location of the displayed movement (C1:M1:Ex2, C2:M8:Ex1, C2:M8:Ex3, C2:M9:Ex4, C7:M18:Ex4). Musician Nineteen encouraged Conductor Ten to provide less pattern and more experimentation (C10:M19:Ex1, C10:M19:Ex2, C10:M19:Ex4). Increasing the physical nature of the gesture or firmness connected to the dynamics of the music was also mentioned (C2:M9:Ex1, C9:M19:Ex2). The conductors were encouraged to establish the conducting plane based on the articulation of the note values and/or the tessitura of the instruments creating the sound. For example, the student-conductors displayed upper woodwind and high brass lines on a higher vertical plane and low brass lines on a lower vertical plane (C1:M1:Ex3, C10:M10:Ex3). The practice of three-dimensional salience also involved having a conductor change the size of his conducting pattern based on the textural thickness of the music's orchestration. This was accomplished by

minimizing the pattern size in moments containing a thinner texture (C7:M10:Ex1) or by maximizing the pattern size in moments containing a thicker texture.

Specifically, right hand pattern size reduction was encouraged to reflect gradual diminuendos, however, it was also implemented successfully prior to executing anacrusi or pick up notes of new phrases (C8:M17:Ex1). It effectively promoted faster tempi over an open left palm (C7:M17:Ex3, C10:M13:Ex3). Right hand pattern size reduction was promoted when a conductor was satisfied with the current tempi and it was used to bring renewed focus to left hand emblems. Widening the right hand pattern size assisted a conductor to exhibit crescendo moments (C10:M11:Ex2). The practice of three-dimensional salience involved differentiating the size of the beats within a pattern. Conductors were trained to pause and continue their movements based on the rhythmic motion and silences that occurred in the excerpt (C1:M2:Ex1, C8:M16:Ex2). Ultimately, the conductors who adapted their conducting plane, and used gestural salience, promoted a shift in the musicians' attention. These changes were connected to the salience of the sound and based on their new-found auditory perceptions (C8:M21:Ex2, C10:M10:Ex1, C10:M12:Ex1).

4.2.2.3 Head Position/ Facial Expression Practice

Head position/ facial expression practice was an important pedagogical focus in Learning Session Two. The conductors worked with the researcher to establish a congruent, interactive and reflexive communication with the musicians. The conductors were instructed to smile (C2:M3:Ex3, C2:M7:Ex4, C7:M17:Ex2) scan the ensemble and make eye contact with the musicians prior to beginning an excerpt. This established a joint performance atmosphere and placed the musicians at ease. Subsequently, it also placed the conductors at ease. The conductors were reminded to look upward at the beginning of the excerpts or prior to solo

entrances (C2:M1:Ex1, C2:M3:Ex1, C9:M13:Ex1, C10:M15:Ex1). They were reminded to hold the abovementioned position for a few measures before looking down at the score (C8:M12:Ex1).

Musical emblems noted exclusively with a head nod (C1:M6:Ex2, C9:M15:Ex2) changed the mode of communication and provided valuable feedback to the musicians (C2:M6:Ex1, C7:M14:Ex2). Facial expressions (C8:M14:Ex1, C9:M15:Ex4) conveyed to the ensemble occur when the soundscape aligns or does not align with the conductor's musical vision. Similarly, while it might seem implicit, a conductor should turn his head and look directly at specific members of the ensemble before and during entrance and release cues. Instructing one to conduct solely with facial expressions is a useful practice that may seem unnatural (C2:M3:Ex2). Conductors that are cerebrally engaged or intensely focused on portraying items found in the score, yet have a blank facial expression, benefit from changing their localization of focus (C7:M11:Ex2, C7:M18:Ex3, C10:M13:Ex1). Becoming emotionally engaged with the music can impact one's facial expressions, but it requires a metacognitive observational learning approach. Digital video feedback used for self-evaluation purposes is a valuable pedagogical tool. One musician recorded that the conductor's personality was evident in both his face and movement (C8:M13:Ex3). A comment such as this requires the musician to know the conductor well enough to comment on his personality. A review of the video recording showed that the joyful, upbeat, march-style excerpt was conducted in a bouncy light manner. The conductor's grins seemed to reflect his appreciation.

Removing the student-conductor's visual access and ability to reference the score greatly increased his visual engagement with the musicians (C8:M19:Ex2, C9:M11:Ex4, C9:M14:Ex4). While some student-conductors required guidance concerning upcoming entrance cues, their

head positions immediately improved. A conductor should be trained to look at the musicians as they play and to transfer this gaze to another musician or group of musicians when his cognitive focus shifts to a new musical line.

A rather interesting finding was that one's head position and facial expressions are connected, yet they seem to be learned independently. While the mastery of a pedagogical focus may improve one's head position, it is not necessarily linked to a direct improvement of one's facial expressions. As evidenced in this study, the latter can be more difficult to master.

4.2.2.4 Breath/ Entrance Cue Practice

The researcher imparted the importance of beginning each excerpt with eye contact, a breath, and either one or two microscopic preparatory beats (C1:M5:Ex4, C1:M9:Ex4, C7:M19:Ex2, C9:M18:Ex1, C9:M13:Ex3, C10:M12:Ex3). This was also addressed following fermata moments and other entrance cues found within the excerpts (C1:M7:Ex4, C10:M15:Ex2, C10:M17:Ex4). Connecting one's breath to each entrance cue was reinforced as a reflection of the tempo. Reminding a conductor to use the same breath he would use to play his own instrument worked well. Verbal reiteration was used to keep one conductor's lips slightly ajar (C7:M12:Ex2). Extra verbal coaching with regard to upcoming solo or soli entrance cues proved useful (C8:M11:Ex3, C8:M16:Ex3, C8:M10:Ex4, C9:M16:Ex3, C9:M21:Ex3). As a result, this improved the gestural accuracy and sound precision of cued moments. Head position and facial expression improvements also coincided with breath/ entrance cue improvements.

4.2.2.5 Fluid Movement Practice

Many conductors required extra practice and instruction to produce smoother more fluid movements. The left hand glide emblem typically employed to reflect a musical crescendo or surge in the soundscape can be difficult for a beginning conductor to master (C1:M1:Ex4). A

glide emblem with a peak vertical height that extended beyond the frame of one's face was frequently observed (C7:M13:Ex4); (C9:M12:Ex2). In order to promote slower, smoother and more controlled movement that travelled a shorter vertical distance, visual parameters were established using the researcher's hands. This strategy worked effectively with both Conductor Eight and Conductor Nine (C8:M12:Ex2). Conductor Ten refined his glide motion with the help of the researcher's verbal cues instead of the hand parameters (C10:M16:Ex1). The musicians expressed that fluid movement prevents an emblem or gesture from appearing stiff (C1:M8:Ex3, C2:M2:Ex1, C2:M3:Ex1).

Fluid movement is a key component of a release gesture because it displays the precise point of release and it reflects the soundscape's continued resonance after the point of release. The baseball swing analogy used to target one's follow-through motion was useful in refining Conductor Eight's fluid movement practice connected to the punch emblem (C8:M12:Ex4). Conductor Nine benefited from this practice when the researcher demonstrated the fluid release motion, and performed it in tandem with the conductor prior to and during the musical excerpt (C9:M17:Ex4). The practice of fluid movement via a bouncing ball analogy was implemented with Conductor Seven to remove a habitual off-beat hitch. Subsequently, this transformed a choppy beat pattern into a much smoother one (C7:M15:Ex1). It also helped the conductor to eliminate a whip-like rebound motion (C7:M10:Ex3).

Reinforcing the practice of fluid movement and removing the pulse from the left hand and its gestures involved disengaging the right hand and having it rest at the conductor's side. This was done to bring focus to the left hand and the execution of its emblematic movements. Movement analogies rapidly assisted the student-conductors to produce smoother gestures without having to ingest lengthy technical explanations. This study clearly confirms that fluid

movement is not inherently perceived; more often than not, the realization that one's movement is choppy or abrupt goes unnoticed until it is brought to one's attention. Whip-like, sticky, choppy or abrupt movements are accentuations that do not reflect or exist in the music. This subsequently causes incongruency between the conductor's movement and the ensemble's sound.

4.2.2.6 Torso Position Practice

Turning one's torso to engage with a musician or group of musicians enhances the communication between the conductor and the ensemble members (C7:M20:Ex3, C9:M20:Ex2, C9:M10:Ex4, C10:M18:Ex2, C10:M21:Ex2). In this study, the exhibited torso position and its practice seemed to coincide with the exhibited head position/ facial expression practice.

Whether correcting the tempo execution of a low brass off-beat or giving an entrance cue to a clarinetist, all instances require the conductor to have an even distribution of weight in his legs, toes and heels. This provides a postural stability that prevents a student-conductor from leaning too far to one side. Moving from one's waist line to communicate with the musicians seated in various locations across the ensemble is also an important torso position practice. As was previously mentioned, student-conductors often require coaching of upcoming solo or soli entrance cues. In this practice, one's torso position naturally follows almost the same directional movement shift and arrival location as one's head position.

The next section of Chapter Four will discuss Post-Learning Session Three's qualitative interview findings.

4.2.3 Post-Learning Session Three Wrap-Up Conductor Interview Findings and Pedagogical Themes

Each student-conductor's complete wrap-up interview transcript can be accessed in Appendix Y. These were included in the thesis so the full context of the dialogue can be

referenced. This section triangulates qualitative findings from the Post-Learning Session Three wrap-up interviews with the pedagogical themes discovered in Learning Session Two.

Conductor Three identified motion capture technology as a tool capable of correcting gestural bad habits (utterance 78-90). Moreover, her reflections outline two primary benefits of the point-light gesture review process. One, the visual absence of the body and face found in the point-light skeleton allows one to objectively reflect on the displayed movement, and two, a lack of connection to one's physical features creates an unbiased ability to shift one's focus from that, which is personal, to the dynamics of the actual movement being reviewed (utterance 100-124). When asked whether her participation in the study and motion capture experience changed the manner in which she thought about her movements during emblematic moments, Conductor Eleven identified her expressive face as a strength that she relies upon when conducting. She explained that her participation in the motion capture sessions made her ponder now that her face wasn't involved, what could her body do to be expressive (utterance 437-444).

The notion of sound tracing is a useful tool for practicing emblematic movement. Conductor One, less concerned with maintaining tempo reinforced and modeled emphatic moments by "emphasizing the shape of the music with my [his] shapes of movements" (utterance 74). The notion that musical gesture should derive its character in part from the ways in which it moves with respect to musical forces (Gritten & King, 2006) was a discussion thread also mentioned by Conductor Six. Conductor Ten reflected on musically salient moments and explained that conducting involves reminding the musicians what is coming next. She offered that while her movements are sometimes spontaneous, she primarily needs to think about her conducting in advance (utterance 218-227). Prior to executing gestures connected to salient musical moments, it is advantageous for a conductor to imagine the desired performance of the

phrase and have a clear inner picture of the soundscape. Conductor Two touched on this concept as well (utterance 176-184).

Obtaining an inner picture of the soundscape prior to rehearsing the work, and adapting this picture to find a common vision with the ensemble as the rehearsal process progresses, are two rarely explicated roles a music conductor faces. A musical score is a living document that can withstand phrase, note length, articulation and tempo revisions according to the acoustics of the performance hall and the style and character of the music. Conductor One's discussion concerning that which comes spontaneously in the rehearsal moment and the advantage of pre-planning various ways to physically represent the same musical moment, reveals the routine manner of accentuating musical emblems is a delicate balancing act.

375 R: =You're just s:o smart, um:: (.) so you can add to this if you want (0.3) I was going to ask you, do you think your mo:vements are spontaneous and occur directly in the mo:ment, or sometimes (0.3) or both, do you think a:head (0.3) to the sound moment and sort of pre-plan an action?

376 C1: U::h (1.0) well sadly, a lot comes sponta:neously (.) and why do I say sadly, because it's not always (.) it mi::ght have been better if you had made a thought of it before

377 R: Mm::.

378 C1: and then, and then I don't (.) I don't mean if you prepare enough you have kind of settled all the movements

379 R: Mm: hmm.

380 C1: but, then you have this arsenal, or, of different movements which you can use in the moments.

381 R: Mm: hmm, Mm: hmm.

382 C1: Which also can be (.) and if you have prepared for different movements at the same spot, then spontaneously you can choose between them

383 R: Mm: hmm.

384 C1: which then still makes it spontaneously. =

385 R: =Mm: hmm, mm: hmm.

386 C1: So it's a balance between (0.5) being in the moment and bringing what you have prepared from before.

Preparing multiple emblems in advance to facilitate spontaneity and moment awareness is a practice that must be emphasized with student-conductors. As the interviewee suggested, obtaining an inner picture of the soundscape for rehearsal purposes can increase one's ability to be spontaneous in rehearsal. In this manner, score study not only increases the number of emblematic movements, but in a sense preserves them for moments where gestural spontaneity is

required. The idea that conducting is a balancing act between being in the moment and bringing what you have prepared from before was also mentioned by Conductor Six. Conductor Eight mentioned how gestural adaptations reflect the sound's continuously changing dynamics, articulations, or note lengths and weights. He echoed his previous conducting professor's sentiment that one must adapt all of the time, even every one or two measures (utterance 93-102).

Repetitive movement is a natural function of any beat pattern. Conductors must avoid entrapment in a flow of energy that loses sight of the musical landscape. Continuity of motion should not take precedent over meaningful emblematic moments that could be traced with a specific gesture palette. Pedagogically speaking, it is useful for a conductor to solely trace with gesture the key sound moments reflected in the music. It is advantageous for the student-conductor to employ this practice in rehearsal to focus on the salient aspects of the music's architecture. This was discovered in Learning Session Two's practice of the emblems.

Cognitively a conductor learns to shift between the perceptual supra-chunk level of the musical phrase to the chunk level where emblematic moments occur. These two levels of musical experience coincide with Snyder's (2000) sonic feature timescales and music-related actions. While emblematic moments and tempo both contribute to the work's overall energy, they can be practiced separately or in a tandem fashion. This helps a conductor to shift his mental focus and attention to moments that either enhance or detract from the audible energy of the music.

Similarly, Conductor Two discussed a dual focus, where one is present both in the musical line [chunk level], but also maintains an awareness of the work's larger form [supra-chunk level]. Moreover, her thought regarding the conductor's localization of focus on different

musical planes is valuable. This rarely explicated ability to shift effortlessly between specific emblematic moments and large-scale musical lines is linked directly to one's performance flow and on-going perception-action cycle (Godøy, 2009).

595 C2: And also being as u::h in the mind I also should be i::n: the musical (1.0) e::
 596 R: Uh huh.
 597 C2: li:ne and uh the-the form of the
 larger work
 Mm: hmm.=
 598 R:
 599 C2: =and not at every moment.
 600 R: Mm: hmm.
 601 C2: E:: I can't be too local if ya know in my
 602 R: Yea::h (2.0) yeah.
 603 C2: focus because e::: yeah no:w I have to go
 ou::t to make that happening to the ba da deet
 bits [laughter]
 604 R: Yeah, yeah, yeah [jovial laughter] yeah,
 that' so true.=
 605 C2: =But then I:: (.) I have to also being on that level of e::: the larger lines (2.0) sometimes. [Laughter]
 606 R: Mm: hmm yeah that's so: true, eh?
 607 C2: Yeah.

This explanation of performance flow and moment awareness parallels Mihalyi Csikszentmihalyi's (1996) flow experience. This noteworthy function is similar because one must focus on a dimension, keep a simultaneous awareness and care for the other dimensions, and create emblems of significance without negatively impacting the performance flow of other dimensions.

Conductor Two's reflection that the complexity of emblematic conducting is not solely about one's chosen movement, but it is also about the energy exhibited and the musical context one creates. This context depends on the musicians' interpretation and perception of this movement, and their experience and taste. If the contextual understanding between the musician and the conductor match, a more accurate rendering of the movement will transpire.

258 C2: e::: as various e:: a palette of the musical expressions and all of the things that we find in the music
 259 R: Mm:::
 260 C2: so when we want to bring out those musical things e::: from the musicians e::: we (1.0) c..can't necessarily find one gesture that is specifically only e::: very exactly on what we want e::: and not e::: possible to misunderstand and so on

261 R: Mm: hmm.=
 262 C2: =but it is: more complex, it's: sort of how you:: e::m (.) it's not only about the movement at that time
 263 R: Mm: hmm.
 264 C2: but it's the energy you::-you:: show and e::: (2.0) and the musical context that you:: create.
 265 R: Mm: hmm (.) mm: hmm.
 266 C2: And then I think musicians are also (0.3) musicians so they also fee::l that e::: e:::m (.) yeah (.) forming of the music
 and in the context (.) they will probably out of their experience and taste
 267 R: Mm: hmm.
 268 C2: e::: interpret a::: a movement that should (0.5) make it ya know (.) suitable
 269 R: Mm: hmm.
 270 C2: or more accurate let's say.
 271 R: Mm: hmm (0.3) yeah (.) oh yeah.
 272 C2: I hope so anyway.
 273 R: Yeah (.) me too::: [R & C2 laughter] Yeah (.) that's good that's u::h (.) that's what it (.) the goal of what it's about I
 think. [R chuckle]
 274 C2: Yeah.

Conductor Five identified the difference between the professional orchestral musician to interpret the forming of the music and its feeling compared to the amateur musicians who require rehearsal practice to learn musical ideas. The amateur's ability to cope with new gestures presented in concert was also identified as being different from a professional musician. He reflected that when elements of music are practiced and more solidified, the conductor's gestural significance is perhaps less valuable.

575 C5: when it's actually a concert, the orchestra is doing all the job and, and you can
 576 R: Yeah.
 577 C5: just do the song.
 578 R: Mm: hmm.
 579 C5: But, but with amateurs you have to practice everything=
 580 R: =Yeah.
 581 C5: you can't have something change on, on the concert.
 582 R: Right.
 583 C5: Like in professional orchestras, sometimes the conductor can (.) have some special feelings
 584 R: Yeah. [Laughter]
 585 C5: and the orchestra (.) can actually (.) build on that feeling
 586 R: Uh huh.
 587 C5: and then do something special (.)
 on the concert.
 588 R: Yeah (.) uh huh.
 589 C5: But amateurs (.) I believe don't work that way
 590 R: No.
 591 C5: they have to practice everything (.) and when it's practiced (.) it doesn't
 matter (.) what the conductor does sometimes
 592 R: No.=
 593 C5: =but of course without the conductor (.) they can't play.
 594 R: That's right. [Laughter]

595 C5: Uh (1.0) so I'm not saying that the conductor doesn't have to do anything on the concert
596 R: Right (.) no, yeah.=
597 C5: =but (.) but of course it's a lot more about (.) simply practicing.
598 R: The rehearsals before it?
599 C5: Yeah, the rehearsals.

Conductor Six identified a number of study practices (utterance 324-342) that can inspire new gestural conducting ideas. For instance score study, having a lesson with a professional conductor, or listening to a recording of another ensemble's interpretation of the work can spark new ideas. The situational energy of being present in the musical moment during the concert was also discussed. Both Conductor Five and Seven stated that a conductor should not do too many new gestures in concert.

Conductor Six's idea that one's conducting approach can be guided by the type of instruments the musicians use to perform, considers the sound and the kinematic movement features required to produce the sound. He suggested imitating a wind player's breath needed to produce the sound or imitating the string player's bow movement. For conducting a percussionist, he suggested imitating the strike motion used to produce the sound (utterance 459-481). Conductor Four offered he is "uncertain whether conducting gestures are universal, and whether or not the same conducting gesture always means the same thing." A gesture that coincides with a bass drum hit would be similarly executed each time if the conductor believes the sound contains the same emotional content. His thought that similar emotions found in music may be connected to similar gestural movements is an interesting one (utterance 73-84).

Conductor Seven divulged that the punch emblem must be executed in a strong percussive manner. This way the musicians understand the movement in their visual periphery and can focus their attention simultaneously on the conductor's gesture and the musical notation. Even more interesting is the interviewee's perspective as an amateur musician, himself, that the punch emblem must remain consistent in its execution from the rehearsal setting to the concert.

His comment “you should do what you did in the rehearsal because that’s how we practiced it,” suggests that musicians expect gestures to be performed consistently (utterance 136-149). This reflection parallels the idea that amateur musicians are less flexible to interpret the forming of the musical emblems in concert when they were displayed in a different fashion in rehearsal.

Similarly, Conductor Five discussed a situation where the conductor, who cued all the entrances, created an environment where the musicians became too dependent on his gesture and never learned to count the appropriate measures of musical silence or to enter properly without a cue. He stated that if the conductor always shows the musicians what to do, they will become confused the one time the he does not show it (utterance 537-553). There appears to be a fine line between spoon-feeding musicians and conducting specific moments with a degree of consistency. This was also discovered in Learning Session Two in the breath/ entrance cue practice moments. Conductor Six’s philosophy with working with professional orchestral musicians was similar.

739 C6: =with the orchestra because I’m trying to learn it (0.5) maybe it’s because the conductor actually does too much and he’s actually standing in front of the music and being more like (.) trying to maybe (.) treating the musicians as machines and, and um: (.) actually thinks that he needs to show everything in order for them to do it. So maybe sometimes it could be that the conductor is too much and then actually just to back off (.) will give space for the musicians to come out.

740 R: Yeah.

741 C6: So and that’s also of course, with personality (.) what kind of person you are and how much space you need on the podium. If you think that your musicians can do it right, then maybe it will be good to back off a little bit, and of course you have the conductor who is doing a lot of really like (.) really fancy movements and maybe it’s not always always the conductor that’s in charge of the thing, but the musicians are doing it themselves so we can actually back off and just listen and enjoy what they’re doing.

742 R: Yeah.

743 C6: I have this philosophy, I want to approach this to my conducting when I get, probably if I get a chance to work with professionals someday, I think I would go for this approach, so it could be an explain (.) explanation to your question.

A rarely explicated disjunct exists between the conductor’s gestural idea and the musicians’ failure to respond musically. Conductor Four (utterance 322-324) and Conductor Eight posited this type of miscommunication will occur if the musicians lack respect for the conductor-leader, or are inexperienced and don’t understand the meaning behind the conductor’s

advanced gestures, which perhaps need to be adapted to the ensemble's level (utterance 394-408). Conductor Five explains this miscommunication as one of two possibilities, either the musicians didn't understand the gesture because it was incorrectly executed or they simply didn't observe the gesture.

613 C5: what was I supposed to say (.) cuz sometimes the teachers want us to:: only show it
 614 R: Mm hm.
 615 C5: and, and uh (.) if they don't (.) do it
 616 R: Mm hmm.
 617 C5: then it's two possibilities, either they (.) didn't understand it, because
 you weren't doing the right thing
 618 R: Mm hmm.
 619 C5: or they just didn't see it.=
 620 R: =Mm hmm.
 621 C5: so then you have to tell them
 622 R: Mm hmm.
 623 C5: if they (.) didn't get it (.) uh:: (.) but um::...
 624 R: But the point (.) is that you should try to show it first?
 625 C5: Yeah (.) and, and try to:: (.) and also try to make the instructions as short as possible.
 626 R: Oh good point.=
 627 C5: =Cuz::, cuz that uh:: of course (.) saves a lot of time.
 628 R: [R and C5 laughter]
 629 C5: But, but then it won't be a lot (.) to think about (.) like (.) don't play as loud
 630 R: Mm hm.
 631 C5: instead of explaining why.

The method for handling this in rehearsal aligns with the role of the conductor-teacher. First, one must represent how the music is to be played, and then one should explain the gesture if it is misunderstood or not observed. Conductor Eleven identified changes in the dynamic frequencies and articulations as moments where the musicians tend to pay more attention to the conductor's gesture, than moments that are going smoothly and maintaining a degree of similarity (utterance 201-202). These concepts align with the three-dimensional salience practice pedagogical theme discovered in Learning Session Two.

Misinterpreted ideas, observational skills, and the musicians' response capability are irrevocably linked to finding one joint conclusion, or collective musical vision, among the numerous possibilities that exist regarding the shape and expression of phrase ideas. Conductor

Five raised the notion of colliding, yet appropriate musical thoughts, and the need for the conductor to unify the orchestra to find one conclusion (utterance 831-850). Additionally, he discussed a respectful manner to ensure the stylistic performance practice fits with the piece's genre. It is important to teach musicians that while their performance practice doesn't fit with the current piece, it is stylistically appropriate for another piece (utterance 891-920). The qualitative analysis and review of Learning Session Two showed this pedagogical practice was useful for teaching conductors the proper moment when a particular facial expression or emblematic gesture was stylistically appropriate.

Frequent changes in the property of the sounds often impel a conductor to reflect the salient moment with a particular emblem. The practice of utilizing gestural body motion to encourage musicians to echo the character of the changing soundscape was discussed by two different conductors (Conductor Six, utterance 264; Conductor Four utterance 54). The intuition, message, and idea, all synonymous with musical character, seem to be linked to appropriate dynamic levels, arc-like phrasing and ensemble balance. Conductor Two's interview revealed both tempo and articulation styles contribute to the music's overall atmosphere and mood (utterance 275-324). These were identified in Learning Session Two as soundscape properties involved in the practice of three-dimensional salience. Conductor Six disclosed a combination of items that contribute to the sound's expression. He revealed that advanced conducting involves contemplating and finding the correct tempo, sound quality and phrasing. He also offered that proper intonation, rhythm, vibrato and articulation contribute to an ensemble's expression (utterance 266-275). Conductor Four discussed timbre and tempo as important elements of music that influence the conductor's gestural movement choices.

- 47 R: ...In my field of u:m (.) musicology I guess:, is we talk about this idea of tra:::cing the sound which could be like u::m (.) drawing the sound in some way with your movement (.) do you feel that your gestures or emblematic movements are done or performed with the intention of tracing or drawing the soundscape or sound landscape?

48 C4: E::m well that-that obviously depends on the music I think
 49 R: Mm::.
 50 C4: especially if you e:: if it's really adagio you might really go into the musical colour with-with the movement of your hands (0.5) but in a (.) in a fast Beethoven symphony you won't have time to do that.=
 51 R: =No.
 52 C4: You might not even need to, I don't know.
 53 R: [Laughter] So you think that it's u:m: (.) u:m: (.) dependent on tempo too::?
 54 C4: Yeah yeah (.) yeah I:: think and u::m (.) the character of the music.
 55 R: Mm:: (.) yeah (.) u::m: (.) why are so:me gestures (0.5) this is something I've always been wondering (0.5) why are some movements or gestures good or appropriate for a wide number of sounds? (1.0) So like some gesture um: (.) you might use for many situations::.
 56 C4: Well I think that maybe those movements indicate the general (0.5) general thought, and then (.) that when the musicians actually have the music in front of them, they just (.) need that (.) that e:: encouragement that the conductor gives and that they don't (.) they just need that in order to do what's written (0.5) but that e:::h if-if they if they didn't have the music if they were just to improvise solely based on what the conductor is doing then (.) they would all have e::: interpreted differently.
 57 R: Mm::: that's great (0.5) very insightful. [Laughter] I love these interviews because they really get at u:m:: what conductors think and feel about what they do, so thank you this is great. U::m: what are some elements or properties or elements of sou::nd that change frequently o:r (.) and require an action or movement to help encourage them, like what you were talking about.
 58 C4: E:::m once more please (.) e:::m wha::t?
 59 R: E:::m u:m: (.) what are so::me elements or-or properties or things in sound=
 60 C4: =Yeah.
 61 R: that would require you (.) that-that change a lot?
 62 C4: Okay I:-I think I understand what (.) you...
 63 R: That might make you want to do a movement (.) like you were saying to encourage them, encourage the players.
 64 C4: Yeah.
 65 R: So what are these cha... what are the thi:ngs in sound that change?
 66 C4: Well u::m: (0.5) I imagine if there was a change (.) I mean obviously in dynamics, in character, in tempo (.) all sorts of (.) e:::m (.) ob-obvious changes in the music.
 67 R: Mm::.

Conductor Four also identified dynamics, character and tempo as properties or elements of sound that change and require a gestural action to encourage the musicians. He also included the idea that context plays a role in our understanding of similar gestures used for different sound situations. Despite the frequent changes and descript complexities found in sound, more often than not, conductors will utilize the same motion for a variety of different types of sounds. Conductor Five posited this phenomena, is connected more to one's perception of a similar musical feeling, rather than different rhythms or pitch structures (utterance 133-140). When probed to identify the changing properties of sound that require an action to encourage them,

dynamic contrasts were identified. Conductor Five disclosed that the texture of the musical moment contributes more than the sole dynamic quality.

Each conductor was queried about the three-dimensional space he uses to conduct emblems. Many of the participants acknowledged they don't consciously think about conducting in terms of using different planes. Conductor Ten described how the engagement of various conducting planes can invoke different sound responses. The interesting comparison between the crescendo glide gesture that utilizes stillness, travels vertically, or travels vertically in tandem with hands that move horizontally apart, brought forth four particular verbs. Pull, open, breathe and reach were mentioned in the discussions of these gestures and included as techniques needed to produce the sounds (utterance 94-119). Conductor Four (utterance 105-126) and Conductor Ten (utterance 160-184) mentioned that the tessitura or note range of the instrumentalist can impact the vertical conducting plane employed by the conductor. When the latter individual was asked whether this was the case for choral voicing as well, it was strongly indicated to be so.

This connection between tessitura and vertical conducting plane location was a pedagogical focus emphasized in the Learning Session Two's three-dimensional salience practice on a number of occasions. Conductor Five discussed conducting a crescendo glide gesture that utilizes spatial dimensions by engaging the sagittal plane or intensity plane and the vertical plane, as opposed to just the vertical plane (utterance 382-410). First, the conductor moves forward or away from the body in the sagittal plane, and then upward in the vertical plane. He points out that producing a vertical plane crescendo glide that travels too slowly might demonstrate a different movement effect and idea (utterance 406).

Conductor Five discussed two of the 3E principles of gestural insignificance, with movement being either exaggerated or extraneous (utterance 463-476). There is a limit to how

large one's gestural palette can extend. The abovementioned conductor described a situation where the conductor that conducts with large gestures in a strong forte section and then encounters a stronger fortissimo section, can't conduct any larger because he's already extended to the outer limit of his gestural palette. The researcher and conductor discussed scaling back and reducing the size of one's movement after the dynamic level is established to prepare for the next dynamic level (utterance 477-487). Conductor Eight suggested a conductor's gestural coherence boundary for the vertical conducting plane should be from the waistline to the chin (utterance 192-204). On the other end of the spectrum, Conductor Eight also reflected that if the conductor is not expressive or lacks knowledge of the musical score, the experienced musicians will still perform in a beautiful manner "no matter what they are given" (utterance 439).

Salience, or the notion that a gesture or sound moment stands out relative to its neighbour gestures or sounds because the occurrences either before or after the moment were different, was identified by all of the participants in the study as a notion the conductor can use to his advantage. In general, changing articulation styles and dynamic qualities were identified across the interviews as sound moments where a conductor uses this notion of salience in his gesture to reflect the salience of the sound. This coincides with the Learning Session Two pedagogical report which revealed changes in the soundscape's tessitura, texture and tempo were involved in three-dimensional salience practice. Research has also indicated that downbeat lengths and melodic peaks contribute to the key-postures involved in the musicians' sound producing movement and for the auditory perception of the sound (Godøy, 2009). Conductor Four discussed using this notion of salience to form the piece and give it structure. He mentioned using it to grade climaxes and show the small unexpected moments contained within the music (utterance 195-208). This reflection aligns with Husserl's phenomenological premise that

musical perception is guided by a string of now-points that contain overlapping prefixes and suffixes. While the conductor isn't physically producing sound with his salient gestural moments, Conductor Eleven eloquently described that these salient moments are most likely the moments when the musicians watch the conductor's gesture, as opposed to the moments when the music is going along in a smooth and unchanging fashion.

- 201 R: So do you think about this notion of salience (.) that a (.) how a conductor can (.) sort of (.) use it (.) to his or her disadvantage? Or do you think that conductors use this notion of salience to their advantage?
- 202 C11: Yeah definitely (.) I think the gestur::e (.) um:: (.) is very distinctive in those periods of time where something really changes so if there is one moment where it's really loud or where one moment is (.) where it's really softer or where it's a stronger articulation (.) than (.) that's shown and that's (.) probably the point where (.) the musicians are really (.) paying attention more so than when (.) everything is kind of just going smoothly and it's the same.
- 203 R: Uh huh (.) yeah (.) good point (.) cuz (.) I think that's something I also wonder about is like, what moments (.) do musicians (.) especially maybe let's say at the university level, really (.) key into looking at the conductor, right?
- 204 C11: Yeah.
- 205 R: So (.) those where the, those are the type of moments wher::e people (.) I think (.) learn to have their eyes up
- 206 C11: Yeah.=
- 207 R: =and watch and (.) and rather than just kind of being in the music.
- 208 C11: Right.=

Conductor Six gave credence to the advanced planning point of view posited by Conductor Two and One. All believed the conductor is capable to gain the result he desires provided the gestural execution is clear in his mind. Specifically, he identifies differences in the types of gesture utilized to communicate and impact the sound of a string musician. He explains this occurs by adapting the conductor's hand pressure and speed required to achieve a soft airy sound or by involving the whole body to encourage a deeper fat sound. This movement explanation transfers directly to the musician's own kinematic bow movement used to play a string instrument. A wind player must breathe to create sound and is influenced more by the nature in which the conductor breathes. All conductors should use their eye contact to reflect the strength and character of the musical sound.

- 185 R: Okay (.) in my field of musicology we talk about this notion of tracing a sound (.) and by that (.) I mean um: (.) I want to know if you think at times your gestures or emblematic movements are done or performed with the intention of drawing or tracing the soundscape?
- 186 C6: Mm hmm (.) if I think that that's a thing to do?

187 R: Yeah (.) or what you feel about it.
 188 C6: Yeah yeah.
 189 R: It's not all of our conducting but, how do you feel it fits in?
 190 C6: I think uh (1.0) I think it's, I guess that's what it's all about, isn't it? To uh: (.) try to use the (1.0) sometimes uh (.) maybe things happen, happen automatically you don't need to do it, it sometimes happens automatically (0.5) but sometimes it is really effective to use certain gestures to produce certain sounds. That's what you are asking me about, tracing sound?
 191 R: Yeah.=
 192 C2: =Yeah um: (.) so:..
 193 R: So sometimes I've asked musicians to draw sort of the sound on paper, but as conductors we get a chance to do what I think of as the three dimensions, to work with so I think I like that more. It's not two dimensional it's three dimensions so:..
 194 C6: I think that for strings it is effective to use the hands I've learned and experienced in a way that not fully because you can, you can adapt the speed and the pressure in your hands directly into the sound production.
 195 R: Mm that relates to the bow movement?
 196 C6: Yeah yeah, so if you want a really soft or airy sound you can, you can speed up your hand like, uh if you want a fat deep sound with all the bow on it you can use the whole body, you know.
 197 R: Ah:..
 198 C6: So for strings (.) I think it's a really fast way to get sound changes
 199 R: Mm:..
 200 C6: but for uh (.) for wind players this is maybe not the most effective way because it doesn't transfer to what they're doing.
 201 R: Their own movement.
 202 C6: But then I've learned that it's more about (.) maybe more about how you breathe
 203 R: Mm hmm.
 204 C6: and how you um: (.) use your facial expression.
 205 R: Mm hmm.
 206 C6: It's how you express your things (.) like you give sound with your eyes or
 207 R: Mm hmm.
 208 C6: the whole thing, but uh (.) yeah (.) so I definitely think you can make sounds in an instant (.) uh if you just have it clearly (.) uh: clear in your mind what you want to do
 209 R: Mm:..
 210 C6: because of course you have to prepare. I'm just talking about what I've learned.
 211 R: No (.) I'm so glad (0.5) this is so valuable!
 212 C6: I have uh: (.) I haven't I don't think this is not uh (.) working automatically for me
 213 R: Yet.
 214 C6: but I believe in (.) in a way this is what I am trying to follow or
 215 R: Mm hmm.
 216 C6: this is what I want to learn (.) is to be able to do things really fast and effective
 217 R: Mm hmm.
 218 C6: but of course it's all you have to be, you have to plan it (.) like we said before you go in
 219 R: [Laughs]
 220 C6: and so you get what you want.

The conductor's breath and facial expression were revealed in the Learning Session Two pedagogical report as practices frequently addressed to further a more congruent communication between the musicians and the conductor. Conductor Eight cleverly suggested that the sound's

salience can be displayed not only in a gestural capacity involving one's hands and arms, but also in one's facial expressions involving the eyes, eyebrows and lips (utterance 279-312).

Conductor Four stressed that he would engage his eyes and give a strong upbeat gesture in sound moments that are strong. He also noted that the left hand can show the strength of the gesture in tandem with the right hand to provide clarity (utterance 144-166).

As previously indicated in the literature review, the discovery and acknowledgement of one's projective dominant mode is useful for gestural non-verbal communication. Specifically, Conductor Six, the vocal-dominant learner, expressed that the wrap-up interview questions and conversations about conducting matters were more inspiring for him, than the gestural communication learning of emblematic phrasing and shape. He articulated that alerting the musicians to a specific measure and showing with gesture what he wanted them to change musically, worked and challenged him (utterance 806-821). While we engage our undergraduate conductors technically in gestural movement practices, assessing the projective mode dominance of each learner is important. This will identify whether or not engaging in inquiry-based discussions concerning each student's technical practices will be beneficial, encourage growth and translate to the execution of his movement. This particular instructional style utilized with a live ensemble and appropriate practice excerpts in Learning Session Two, was believed to be pedagogically beneficial by the researcher and musicians as indicated in their aggregated feedback reports. Classroom group discussion and hands-on mentorship with a field supervisor, professional conductor, or classroom music teacher can be incorporated into an undergraduate conducting course's design and framework. Conductor Ten was queried whether her participation in the study increased her capability to execute more expressive movements with

her choral ensemble. Her recollection of pedagogical moments that occurred in Learning

Session Two provided clues or factors that can restrict the development of gestural expression.

420 R: So that's good (.) and um: (.) had you uh, do you feel like now (.) in working with your choir, you can be more expr,
uh (.) expressive in your movements?

421 C10: Uh: yes, yes

422 R: Good.

423 C10: cuz um: (.) uh that day um: (.) I was doing too much like, just um: (.) patterning

424 R: Mm hmm.=

425 C10: = and too much left hand. I don't know what I was doing, but yeah, I learned that I was doing too much patterning so
I need to like (.) show more phrasing and um: (.) give them good cues like not every time doing left hand, but

426 R: Yeah.

427 C10: yeah.

In this particular case, repetitive left hand motion that mirrored the right hand, and the presence of the pulse in the left hand were inhibiting the conductor's ability to show phrasal moments. As recorded in the Learning Session Two pedagogical report, the conductor was instructed in Excerpt Two to disengage the left hand from the right by relaxing it to her side. She was encouraged to practice showing an incomplete pattern that employs moments of stillness where musical silences occur, and to reengage the complete pattern in a fluid crescendo moment. This helped her to demonstrate a clarity of motion that was more congruent with the rhythmic motion and melodic direction of the line.

In Excerpt Three and Four, Conductor Ten worked on engaging with each musician by turning her head and looking directly at those with whom she was communicating. She also worked on breathing jointly with the soloists and learned to give left hand entrance cues that coincided with the strength of the musical moments. It should be recognized that torso position, head position, facial expression, and the execution of a unison breath can be practiced separately, or in tandem with emblematic movements. Both entrance cues and emblematic movements involve these practices and are impacted by the sound's frequency and character. These two stimuli help shape one's ability to move in an expressive manner. Specifically, when queried whether participation in the study improved one's connection between the expression contained

in the musical score and one's chosen movements, Conductor Eight discussed confidence on the podium as a key trait that musicians perceive. He explained that the musicians' trust in the conductor increases when it is evident he knows the musical score and is moving with intent and purpose (utterance 419-433).

Many of the conductors preferred to remember one item (gesture or sound) and match it with the three remaining items (sounds or gestures), than to remember three items (sounds or gestures) and match them to the one item (gesture or sound) in the pre-learning and post-learning emblem identification tests (Conductor 2, utterance 613-615; Conductor 2, utterance 616-617; Conductor 4, utterance 288-300; Conductor 4, utterance 301-308; Conductor 5, utterance 706-709; Conductor 5, utterance 732-737; Conductor 8, utterance 357-360; Conductor 8, utterance 361-362; Conductor 10, 250-251; Conductor 10, 260-263). It didn't matter whether the sounds or the gestures were presented first, they preferred to hear or see either the single sound or single gesture, as opposed to the small group of sounds or small group of gestures.

Conductor Ten identified the punch gesture as the easiest to execute. In this particular case, she also identified the dab gesture as the hardest for her to put into practice (utterance 79-86). While they are both sudden emblems, the primary difference is that the dab is a lighter movement. Generally, the conductors' emblem identification test results showed they had more success in identifying the punch sounds and gestures over the dab sounds and gestures. One's ability to perform an emblem may be connected to one's ability to perceive an emblem or a coarticulated audio-action emblematic unit.

- 267 R: Yeah, yeah, exactly (.) yeah, and it's interesting like at the start (.) the musicians (.) the conductors I think had a slight advantage (.) for the first test because they had heard the sounds before
268 C11: Yeah.
269 R: but the musicians never had.
270 C11: Right.
271 R: And so I was wondering how their brains hurt after that
272 C11: Yeah.

273 R: cuz they were (.) they didn't even know the sounds or had, or
had any familiarity with those sounds if they hadn't played
those marches before.=

274 C11: =Yeah (.) and that definitely helped me:: too because I know I'd like (.) thought of gestures in my head (.) in my head
when I ha::d conducted them before

275 R: Yeah.

276 C11: so then when I heard the sounds:: (.) I was kind of thinking of what I:: had do::ne
and how that reflected on the screen, so::....

277 R: Yeah:: yeah, to (.) to make a connection=

278 C11: =Yeah.

279 R: if you (.) oh: yeah, I did something like that, that might be the one.

280 C11: Right. [Laughter]

281 R: Yeah (.) absolutely, if there's any way we can make connections I think (.) if you've produced the movement before
(.) you have a good chance of being able to make a connection to someone else's movement that might be similar.

282 C11: Yeah.

Conductor Eleven's discussion of observing the point-light display gestures and comparing them to the movements she had previously executed, which helped her to discern correct responses, is interesting. This reflection supports mirror neuron theory and is congruent with Cattaneo and Rizzolatti's (2009) investigation that found the activation of one's mirror neuron system is directly related to the observer's motor experience of a given action.

Conductor Nine postulated how similar soundscapes can connect to the production of similar types of action, and that the intensity, clarity and energy reflected is maintained regardless of the gesture's size (utterance 222-234). Like one's signature, while the effector muscles used to produce the movement are different, the form and structural integrity of the gesture remains the same. This reflection supports the gestalt idea that the perceptual constancy and formal structure of an emblem are maintained across changes in size.

Conductor Nine confirmed how he learned to apply eye contact and use different facial expressions to connect with the musicians. He explained that a conductor can benefit from thinking from the musicians' perspective, and he mentioned the importance for a conductor to be aware of his eye contact, smile and breath. His comment "as long as you're noticing them," supports the conclusion that breath entrance cues, facial expressions and eye contact are not

inherent skills and must be taught. Student-conductors need to practice implementing these techniques so they can, as Conductor Nine described, be able to do just what they need to do (utterance 570). This point supports the notion of using salience to a conductor's advantage, having the capability to do what needs to be done. Conductor Nine also shared how the learning garnered in the study was like a practicum, where he was able to put into practice the theoretical learning obtained from his two previous undergraduate conducting courses. He expressed a new awareness of movement that connected his perception of movement to what he was actually doing. He also expressed that general conducting knowledge is not enough, and that one must practice with a small ensemble (utterance 837-847).

Similar to Conductor Eleven, Conductor Nine relayed that seeing what others had done (in the point-light displays) was huge in the learning process (utterance 876-891). When questioned whether he believed he was a better observer of the emblems from observing his own or others' movement contained in the point-light videos, he explained how it increased his vocabulary of certain gestures and sounds, and how this particular sound was probably associated with that particular movement (utterance 852-857). When queried whether observational point-light display training helped him perform the post-learning emblem identification test, he explained that remembering what he had to do to produce the movement aided the speed of his cognitive processing (utterance 867-871). This feedback is congruent with research that states the mirror neuron system will continue firing even when one's muscles are at rest, given that once the brain has learned an action it can simulate the action without moving (Helding, 2010). The next section of this chapter will explain the between-method triangulations employed in this study. Pedagogical methods that aid a conductor's ability to produce a clear

glide/ press, dab or punch gesture and the target movement objective foundational to the performance of the specified emblem will be discussed.

4.3 Between-Method Triangulations

The between-method triangulations of a mixed method study, such as this one, not only involved creativity and ingenuity in collecting the data, but it also required defining and analyzing complex phenomena to make insightful interpretations. Mixed method triangulations can bring a holistic understanding to Godøy's model that our perception of distinct or salient moments is guided by *gestural-sonic objects*, or mental images that merge or fuse auditory input with gestural boundaries (Godøy, 2006; Godøy & Leman, 2010) and the dynamic relationship that exists between the conductor and the ensemble.

In this study, two different between-method triangulations were performed. The first between-method triangulation used with the conductor experimental group from Calgary involved interpreting convergent data compiled from conductor self-evaluation questionnaires, perceived emblem identifications and written feedback. The latter two were obtained from the musicians. This illuminated the conducting behaviour and emblem practices recorded in Learning Session Two's pedagogical report in the proper context that aligned with the learning objectives targeted and practiced in Learning Session One.

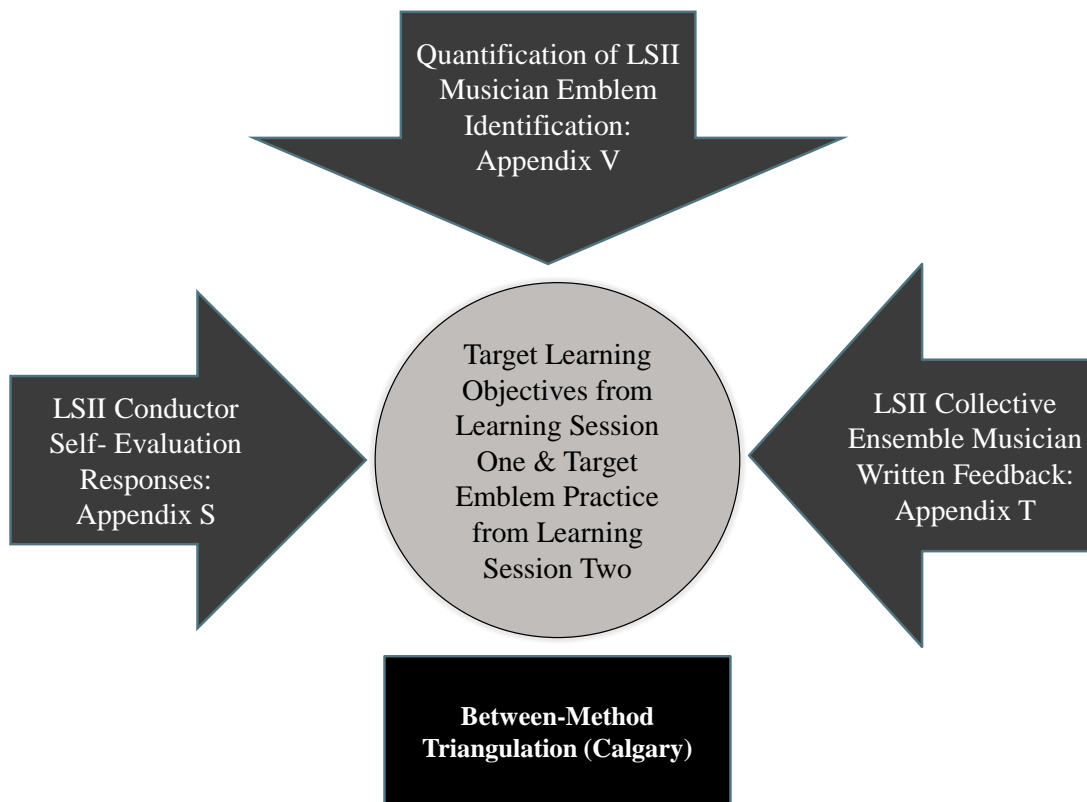
The second between-method triangulation used with the conductor experimental group from Oslo involved interpreting convergent data compiled from conductor self-evaluation questionnaires, wrap-up interviews, chamber ensemble musician written feedback and the expert panel's mean evaluations. This illuminated the conducting behaviour and emblem practices recorded in Learning Session Two's pedagogical report in the proper context that aligned with the improved congruency of each conductor's gesture and the ensemble's sound.

4.3.1 Movement Learning Objectives & Emblem Practice Summary

Specifically, the musicians' quantified emblem identification test results and pertinent qualitative feedback regarding the execution of each emblem collected in Learning Session Two, along with the conductor self-evaluation responses collected before and after Learning Session Two, were used to triangulate a homogenous conclusion of improved confidence and ability to kinesthetically perform the emblem connected to the target learning objective reinforced in Learning Session One. The triangulation of the data revealed improved sonic-object execution in a conductor's ability to achieve a fluid glide by maintaining a state of flow in his body, with expressive arms, during the practice of both the glide or press emblem demonstrated in measure seventeen and eighteen of Excerpt One. Improved sonic-object execution in a conductor's ability to stabilize his central axis during the practice of the dab emblem, demonstrated in measure five and seven of Excerpt Three, was also discovered. Similarly, the triangulation confirmed an improved sonic-object execution in a conductor's ability to stabilize his central axis during the practice of the punch emblem, executed in measure eight of Excerpt Four.

This section will give a brief summary of the qualitative and quantitative findings that support one another. Six individual learning cases have been included. Conductor Seven and Nine are each mentioned in one learning case. Conductor Eight and Ten are mentioned in two separate learning cases. Figure 4.2 graphically displays the between-method triangulation employed with the Calgary student-conductors. An in-depth review of the video feedback, extracted from both Learning Session One and Two, showed a connection between the target learning objectives required to produce the movement and the improved execution of specific emblems.

Figure 4.2: Between-Method Triangulation (Calgary)



4.3.1.1 Target Learning Objective: Achieve a Fluid Glide by Maintaining a State of Flow in Your Body, with Expressive Arms
Target Emblem Practice: Glide or Press, Excerpt One (Measure 17 and 18)

Maintaining a state of flow in a conductor's body, with expressive arms, in order to achieve a fluid glide appears to assist the clear execution of a glide or press emblem. In this case, Conductor Eight recorded that his comfort/ confidence level with Excerpt One increased significantly after the learning session. The researcher's pedagogical report of Conductor Eight's Excerpt One emblem practice promoted a slower and smoother movement between

Table 4.6.1: Highlighted Conductor Eight Self-Evaluation Responses

<u>Questions</u>	<u>Before Learning Session</u>	<u>After Learning Session</u>
Participant's Knowledge of Conducting Emblems and Non-Verbal Illustrators	Vast Knowledge	Vast Knowledge
Excerpt #1 Comfort/ Confidence Level	3.313	3.875
Excerpt #2 Comfort/ Confidence Level	3.750	4.000
Excerpt #3 Comfort/ Confidence Level	3.000	3.500
Excerpt #4 Comfort/ Confidence Level	4.125	4.375
Ability to Kinesthetically Perform Press	Adequately	Effectively
Ability to Kinesthetically Perform Glide	Minimally	Effectively
Ability to Kinesthetically Perform Dab	Effectively	Effectively
Ability to Kinesthetically Perform Punch	Effectively	Effectively

Table 4.7.1: Conductor Eight Musician Emblem Identification Accuracy (Press or Glide)

Conductor 8	(C8)
Musician Feedback 19	
Glide (M10)	1
Press (M11)	1
Press (M12)	1
Press (M13)	1
Press (M14)	1
Glide (M15)	1
Glide (M16)	1
Glide (M17)	1
Glide (M18)	1
Press (M19)	1
Punch (M20)	0
Glide (M21)	1
Average	0.917
Stdev	0.289

visible parameters. The conductor's perceived ability to kinesthetically perform the press emblem increased from adequately to effectively, while his perceived ability to kinesthetically perform the glide emblem increased significantly from minimally to effectively (view Table 4.6.1). The chamber musicians had a high accuracy in identifying the displayed emblem as either a press or a glide (view Table 4.7.1). Musician Nineteen recorded "Presses improved, but still need practice." This honest comment reveals the musician's perception of the improved emblem and supports the conductor's perceived improvement

concerning his ability to perform the emblem. This success was, in part, achieved by maintaining a state of flow in his body with expressive arms as he increased his ability to produce a fluid glide. The nature of the movement was such that the researcher, chamber musicians and conductor all observed a change in the homogeneity of the emblem's execution in this particular sound moment connected to the pedagogy employed.

The between-method triangulation of this case, and the five others summarized below, support research that suggests that those who consciously improve and utilize non-verbal illustrators along with other techniques, can in turn inspire more musically expressive performances (Grechesky, 1985; Sousa, 1988). As the glide improved, the musicality of the sound seemingly connected to the goal-directed action (Leman, 2008), also improved. The phrase dimension of thoughtful listening that considers the volume or amplitude, duration of musical moments and tempo subtleties of each phrase also contributed to the musicians' and conductor's more congruent communication. Therefore, it appears that certain principles of psychoacoustic phenomena, discussed in Chapter One, powerfully interact with the phrase dimensions of thoughtful listening involved in our goal-directed emblem execution. In this manner, emblem practice and thoughtful listening are both intertwined with our sensorimotor relationships, discussed in Chapter Two.

Table 4.6.2: Highlighted Conductor Ten Self-Evaluation Responses

<u>Questions</u>	<u>Before Learning Session</u>	<u>After Learning Session</u>
Participant's Knowledge of Conducting Emblems and Non-Verbal Illustrators	Vast Knowledge	Vast Knowledge
Excerpt #1 Comfort/ Confidence Level	3.125	4.375
Excerpt #2 Comfort/ Confidence Level	3.750	4.375
Excerpt #3 Comfort/ Confidence Level	4.000	4.750
Excerpt #4 Comfort/ Confidence Level	4.000	4.750
Ability to Kinesthetically Perform Press	Minimally	Effectively
Ability to Kinesthetically Perform Glide	Adequately	Effectively
Ability to Kinesthetically Perform Dab	Adequately	Effectively
Ability to Kinesthetically Perform Punch	Minimally	Effectively

Here the researcher's pedagogical report of Conductor Ten's Excerpt One emblem practice involved demonstrating the emblem, in tandem with a musical crescendo. The conductor worked on performing this emblem in a slower manner that travelled a shorter vertical distance. Conductor Ten recorded that her comfort/ confidence level with Excerpt One increased

Table 4.7.2: Conductor Ten Musician Emblem Identification Accuracy (Press or Glide)

Conductor 10	(C10)
Musician Feedback 16	
Press (M10)	1
Glide (M11)	1
Glide (M12)	1
Glide (M13)	1
No Emblem (M14)	0
Glide (M15)	1
Press (M16)	1
Glide (M17)	1
Glide (M18)	1
Press (M19)	1
Press (M20)	1
Press (M21)	1
Average	0.917
Stdev	0.289

very significantly after the learning session. Her perceived ability to kinesthetically perform the press emblem changed from minimally to effectively and her perceived ability to kinesthetically perform the glide emblem changed significantly from adequately to effectively (view Table 4.6.2). Again, the chamber musicians had a high accuracy in identifying the displayed emblem as either a press or a glide (view Table 4.7.2). Musician Sixteen recorded, “Her crescendo gestures are much smoother now than the first few

times, but I don’t think this is something that can be practiced in one practice session.” This direct comment, similar to the one given in the last case, verifies the conductor’s increased ability to produce a fluid glide and supports the conductor’s perceived improvement concerning her ability to perform the emblem.

Similar to Conductor Eight, Conductor Ten increased her ability to produce a smoother and more fluid glide by maintaining a state of flow in her body with expressive arms. The nature of the movement, utilizing spatial dimensions by engaging both the sagittal plane or intensity plane and the vertical plane, was also discussed by both Conductor Ten and Conductor Five in Post-Learning Session Three. They discussed that the researcher, chamber musicians and conductor all observed a change in the congruent communication of the emblem’s execution in this particular sound moment connected to the pedagogy employed. Both triangulations discussed in this section support Billingham’s (2001) conclusion that the gestural meaning and effectiveness of the emblem increased when given in combination with traditional beat patterns.

*4.3.1.2 Target Learning Objective: Stabilize Your Central Axis
Target Emblem Practice: Dab, Excerpt Three (Measure 5 and 7)*

Similar to the glide, it was observed that experimental group conductors often struggled to produce lighter dab emblems. Musicians and conductors alike rarely misperceive emblems with obvious weight, like the punch, however, they do struggle to identify a glide or dab when it has a weightless quality. This was evidenced in Learning Session Two's Musician Emblem Identification results and Pre-Learning Session Two's Emblem Identification Part Three test result that revealed both the conductor groups and the musician group were most accurate overall in identifying the audio-action Sound 4 Punch emblem and Sound 1 Press emblem.

Like the execution of the punch, a conductor must stabilize his central axis to produce a dab that occurs suddenly. Once this occurs, various analogies, previously discussed in this chapter, can be employed to encourage a lighter movement is executed in tempo with the current soundscape. The context/form dimension of thoughtful listening that considers the musical style, execution of ornaments, historical tempo change influences and key musical moments also contributed to the musicians' and conductor's more congruent communication.

Table 4.6.3: Highlighted Conductor Nine Self-Evaluation Responses

<u>Questions</u>	<u>Before Learning Session</u>	<u>After Learning Session</u>
Participant's Knowledge of Conducting Emblems and Non-Verbal Illustrators	Vast Knowledge	Vast Knowledge
Excerpt #1 Comfort/ Confidence Level	2.375	3.750
Excerpt #2 Comfort/ Confidence Level	2.500	4.000
Excerpt #3 Comfort/ Confidence Level	2.313	3.500
Excerpt #4 Comfort/ Confidence Level	2.375	2.875
Ability to Kinesthetically Perform Press	Minimally	Minimally
Ability to Kinesthetically Perform Glide	Minimally	Minimally
Ability to Kinesthetically Perform Dab	Poorly	Minimally
Ability to Kinesthetically Perform Punch	Poorly	Minimally

Table 4.7.3: Conductor Nine Musician Emblem Identification Accuracy (Dab)

Conductor 9	(C9)
Musician Feedback 18 & 21	
Glide (M10)	0
Dab (M11)	1
Dab (M12)	1
Punch (M13)	0
Dab (M14)	1
Dab (M15)	1
Punch (M16)	0
Glide (M17)	0
Dab (M18)	1
Dab (M19)	1
Dab (M20)	1
Dab (M21)	1
Average	0.667
Stdev	0.492

The researcher's record of the emblem practice found in the pedagogical report under Conductor Nine, Excerpt Three, promoted the employment of a light staccato moment using a left hand preparatory gesture that concludes with the index finger and thumb opening directly on the sound moment. Conductor Nine recorded that her comfort/ confidence level with Excerpt Three increased very significantly after the learning session and her perceived ability to kinesthetically

perform the dab emblem reflected a marginal change from poorly to minimally (view Table 4.6.3). The chamber musicians had a moderate accuracy in identifying the displayed emblem as a dab (view Table 4.7.3). Musician Eighteen recorded "The staccato cue is much less jerky than on the first trials." This comment reflects immediate progress obtained and an improvement in the emblem's clarity; free of jerky movement that accelerates unnecessarily. This feedback supports the conductor's perceived improvement concerning her ability to perform the emblem. Conductor Nine's success was achieved by stabilizing her central axis and by preparing the motion that leads to the staccato moment accordingly.

Musician Twenty-One's comment that, "It helps when the researcher reminds her of the cues, the communication is more sound" supports the notion that a conductor's increased awareness of an emblem's corresponding sound moment is helpful to the precise execution of the musician's sound moment. The nature of the pre-planned cue movement was such that the researcher, chamber musicians and conductor all observed a change in the congruent

communication of the emblem's execution in this particular sound moment connected to the pedagogy employed.

Table 4.7.4: Conductor Ten Musician Emblem Identification Accuracy (Dab)

Conductor 10	(C10)
Musician Feedback 10	
Dab (M10)	1
Dab (M11)	1
Punch (M12)	0
Glide (M13)	0
Glide (M14)	0
Dab (M15)	1
Punch (M16)	0
Dab (M17)	1
Dab (M18)	1
Dab (M19)	1
Dab (M20)	1
Dab (M21)	1
Average	0.667
Stdev	0.492

Conductor Ten recorded that her comfort/ confidence level with Excerpt Three increased significantly after the learning session. Her perceived ability to kinesthetically perform the dab emblem changed substantially from adequately to effectively, highlighted previously in Table 4.6.2. The chamber musicians had a moderate accuracy in identifying the displayed emblem as a dab (view Table 4.7.4).

Musician Ten recorded "Changing the location of her

dab was appropriate for me as a flutist." This comment reflects that a location change in the vertical three-dimensional conducting plane of the emblem improved its clarity. Both the musician's comment and the researcher's record of the practice transcribed in the pedagogical report under Conductor Ten, Excerpt Three, confirm the validity of differentiating one's vertical conducting plane to connect with a musician whose instrument sounds in an outlying tessitura. Similar to the previous case, Conductor Ten's success was, in part, achieved by stabilizing her central axis and changing the conducting plane of the engaged emblematic movement.

This data supports the notion that a conductor's increased awareness of an emblem's vertical plane location as it corresponds to the sound's tessitura is helpful to the precise execution of the musician's sound moment and visual understanding of the displayed emblem. In order to adequately change one's vertical conducting plane, one's central axis should be

stabilized. Similar to Conductor Four (utterance 105-126) and Conductor Ten's (utterance 160-184) Post-Learning Session Three discussion point concerning the sound's tessitura and the conductor's vertical conducting plane, the nature of the vertical location of the movement was such that the researcher, musicians and conductor all observed a change in the homogenous communication of the emblem's execution in this particular sound moment connected to the pedagogy employed.

*4.3.1.3 Target Learning Objective: Stabilize Your Central Axis
Target Emblem Practice: Punch, Excerpt Four (Measure 8)*

Stabilizing one's central axis is highly involved in producing a clear punch emblem that contains sound direction for the musicians to follow. In this case, Conductor Seven recorded that his comfort/ confidence level with Excerpt Four increased after the learning session. His perceived ability to kinesthetically perform the punch emblem was noted as effectively and was maintained as such (view Table 4.6.4). The chamber musicians had a high accuracy in identifying the displayed emblem as a punch (view Table 4.7.5). Musician Twelve recorded "Like the last conductor, his punches were even better with a follow-through motion."

Table 4.6.4: Highlighted Conductor Seven Self-Evaluation Responses

<u>Questions</u>	<u>Before Learning Session</u>	<u>After Learning Session</u>
Participant's Knowledge of Conducting Emblems and Non-Verbal Illustrators	Minimal Knowledge	Some Knowledge
Excerpt #1 Comfort/ Confidence Level	3.438	3.125
Excerpt #2 Comfort/ Confidence Level	3.625	3.375
Excerpt #3 Comfort/ Confidence Level	4.000	4.125
Excerpt #4 Comfort/ Confidence Level	4.250	4.500
Ability to Kinesthetically Perform Press	Adequately	Adequately
Ability to Kinesthetically Perform Glide	Effectively	Effectively
Ability to Kinesthetically Perform Dab	Adequately	Adequately
Ability to Kinesthetically Perform Punch	Effectively	Effectively

Table 4.7.5: Conductor Seven Musician Emblem Identification Accuracy (Punch)

Conductor 7	(C7)
Musician Feedback 12, 14 & 18	
Punch (M10)	1
Punch (M11)	1
Punch (M12)	1
Punch (M13)	1
Punch (M14)	1
Punch (M15)	1
Punch (M16)	1
Punch (M17)	1
Punch (M18)	1
Punch (M19)	1
Press (M20)	0
Punch (M21)	1
Average	0.917
Stdev	0.289

This comment confirms that the emblem's follow-through movement improved its execution and that a marked improvement was also observed in the previous experimental group conductor. This seems consistent with the conductor's perceived improvement concerning his ability to perform the emblem. Musician Eighteen's feedback "Every punch should not look the same, otherwise I feel there is no need to watch because I know what's

coming," reveals the musician's feeling regarding the researcher's instruction for the conductor to differentiate the size and the strength of the repeated punch emblems, listed in Conductor Seven's Excerpt Four pedagogical report.

Similar to the previous dab emblem cases, Conductor Seven's success was, in part, achieved by stabilizing his central axis while implementing an engaged and fluid follow-through movement that changed the conducting plane to coincide with the sound's reverberation or audible decay. This data supports the notion that a conductor's increased awareness of an emblem's vertical plane location, as it corresponds to the sound's tessitura and decay, is helpful to the precise execution of the musician's sound moment. Musician Fourteen's comment "Good direction on the bass drum solo," reveals the success of the emblem. In order to produce the abovementioned follow-through motion, a conductor must maintain stability with respect to the continued rotation of the central focal point. The nature of the follow-through movement was such that the researcher, chamber musicians and conductor all observed a change in the

homogenous communication of the emblem's execution in this particular sound moment connected to the pedagogy employed.

Similar to Conductor Seven, Conductor Eight evaluated that his comfort/ confidence level with Excerpt Four increased after the learning session. His perceived ability to kinesthetically perform the punch emblem was noted as effectively and was maintained as such

Table 4.7.6: Conductor Eight Musician Emblem Identification Accuracy (Punch)

Conductor 8	(C8)
Musician Feedback 12 & 18	
Punch (M10)	1
Punch (M11)	1
Punch (M12)	1
Punch (M13)	1
Punch (M14)	1
Punch (M15)	1
Punch (M16)	1
Punch (M17)	1
Punch (M18)	1
Punch (M19)	1
Press (M20)	1
Punch (M21)	1
Average	1.000
Stdev	0.000

(view Table 4.6.1). The chamber musicians had a perfect accuracy in identifying the displayed emblem as a punch (view Table 4.7.6). Musician Twelve again recorded "His punches were better with a follow-through motion," confirming the conductor's improved skill. This seems consistent with the conductor's perceived improvement concerning his ability to perform the emblem. Musician Eighteen's reflections "Punches have more weight attached in

the fortissimo spots. Not sure what you want at the end," reveal an understanding of the sonic-object that links the strength of the gesture to the strength of the sound and that the conductor's gestures near the end of the excerpt were such that the musician failed to make this association. Upon review of the video feedback from Learning Session Two, the researcher observed the conductor's central axis was less stable and that the into-point motion was lighter than the previous punches. This data supports the notion that the conductor's increased awareness of the weight of the emblem, as it corresponds to the initial sound moment and decay, is helpful to the precise execution of the musician's sound moment. The nature of the follow-through movement

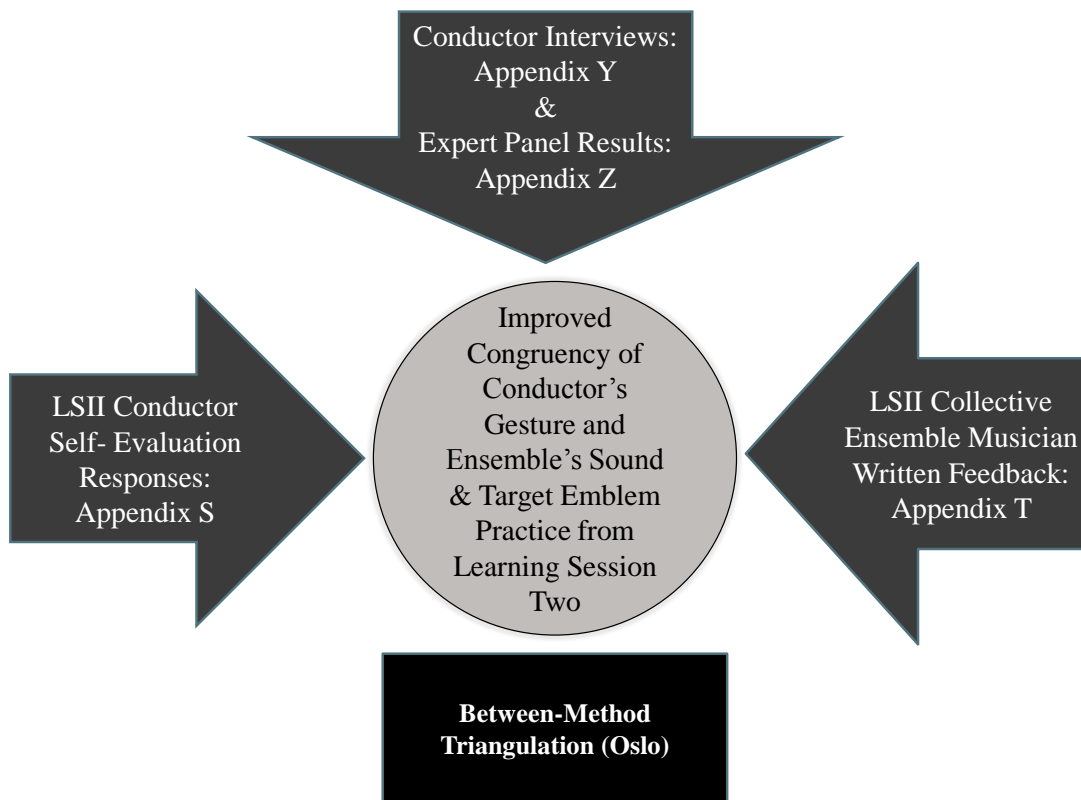
was such that the researcher, chamber musicians and conductor all observed a change in the homogenous communication of the emblem's execution in this particular sound moment connected to the pedagogy employed.

4.3.2 Movement and Sound Congruency & Emblem Practice Summary

While there were not enough participants to run a statistical analysis on the expert panel's Likert continuum evaluation data, aggregating the mean values for improvement trends and probing further into the qualitative themes discovered was valuable for the between-method triangulation of the two Oslo experimental conductors. This between-method triangulation compared: the expert panel results located in Appendix Z, Learning Session Two's conductor self-evaluation responses included in Appendix S, Learning Session Two's collective ensemble musician feedback recorded in Appendix T and the thematic strands of the wrap-up interviews found in Appendix Y. This investigated the congruency of each conductor's gesture and the ensemble's sound as it related to the target emblem practices utilized in Learning Session Two's Excerpt One through Four. This section will give a brief summary of the qualitative and quantitative findings that support one another.

The expert panel of gesture judges Likert scale continuum evaluation of the *Washington Grays March* (Excerpt One) clip that dealt primarily with press and glide emblems, showed a mean increase in both the expressivity of Conductor One and Two's gesture and the ensemble's sound (view Table 4.1.1 and Table 4.2.1). Both Musician One and Musician Five raised issues with the tempo taken by Conductor One (view Appendix T for each musician's qualitative feedback record). Musician Five raised the notion that the emblems or high points of the piece were ineffective when executed late. It seems likely that both an unnecessary decrease in tempo and frequently late gestures contributed to a decrease in the ensemble's emblematic sound

Figure 4.3: Between-Method Triangulation (Oslo)



specificity as it related to the conductor's gestural emblematic specificity. Musician Eight confirmed that Conductor One is expressive, confident and secure, but also relayed that Conductor One's clarity should improve in the moments where he would like the band to follow him. This feedback seems congruent with the notion that improved emblematic specificity of gesture will improve the ensemble's emblematic specificity (view Table 4.3.1 and Table 4.4.1). Musician Two raised the point that pedagogical instruction that reduces the number of emblematic movements makes it easier to follow the conductor and brings importance to the key movements. Musician Eight explained that while Conductor One was expressive, the clarity or emblematic specificity of the ending needed to improve. In utterance 540 to 547 of his wrap-up interview, Conductor One answered that the press gesture, which requires a sustained energy was

the most challenging emblem for him to incorporate in the musical moment.

Concerning Conductor Two, both Musician One and Eight commented that her gestures or emblems were small. It is plausible that the gesture's size irrevocably connected to the gesture's emblematic specificity must be differentiated enough to impact the ensemble's sound specificity. Musician Eight suggested that Conductor Two should differentiate the emblems practiced by making her smaller gestures smaller and her larger gestures larger. Musician One explained the gestures are clear and specific. Musician Eight relayed the gestures express a lot. This feedback is congruent with the expert panel's evaluation that both gestural expressivity and emblematic specificity improved.

After Learning Session Two, as recorded in his self-evaluation, Conductor One's response to the statement, a physically expressive and emblematic conductor greatly effects an ensemble's performance expression, increased from agree to strongly agree (view Appendix S for the self-evaluation response result tables). Conductor Two recorded strongly agree in response to the statement both before and after the learning session. Musician Five's response that Conductor Two was quite effective when using her non-baton hand and the comment that "the dynamics she got out of us were great," aligns with Conductor Two's self-evaluation responses. This statement also confirms the importance of the right hand's role and influence of the sound's dynamic quality involved in creating expressive and emblematically specific moments. The improvements made to the execution of the press emblem and the progress made in the dynamic landscape of the music's expressivity, seems congruent with the expert panel's Likert scale continuum evaluation that the conductor's kinesthetic connection to the ensemble's auditory result increased in both Conductor One and Two (view Table 4.5.1). Before and after Learning Session Two, both Conductor One and Two recorded strongly agree in his or her self-

evaluation to the statement that coaching designed to enhance expressivity and encourage experimentation with emblems benefits a beginning conductor.

As was previously mentioned, the expert panel of gesture judges Likert scale continuum evaluation of the *Barnum and Bailey's Favourite* (Excerpt Two) clip that dealt with glide dab and glide punch emblems, showed a mean increase in the expressivity and emblematic specificity of Conductor One and Two's gesture (view Table 4.1.2 and Table 4.3.2). Musician Seven noted that Conductor One took the pedagogical punch instructions very well and was a fast learner. This seems congruent with Musician Five's feedback that Conductor One's gesture training involving the punch was incredibly effective (view Appendix T for each musician's qualitative feedback record).

Musician Two's comments that Conductor Two's awareness of the movements and their force brought about change and that this was easier for the musicians to follow, was echoed in Musician Five's comment that "after coaching the first four bars, it was much easier to follow her pattern and play exactly together." Musician Seven's reflection that Conductor Two made great progress in the punch-beats and compact accent near the end, also confirms an improvement of emblematic specificity of gesture. These qualitative feedback strands support the notion that though they are intertwined with one's gestural pattern, emblematic specificity improvements can enhance the ensemble's performance precision and auditory result.

Musician One confirmed that Conductor Two's dynamic indicators, crescendos and diminuendos improved at the end of the excerpt, and that the musicians played with "a meaning." Musician Five's feedback of Conductor One's vast improvement of "dynamism he was able to coax out of the ensemble," echoed the notion that meaning is linked to one's sound result. It is plausible that the conductor's kinesthetic connection and gestural improvements can

cause a more meaningful performance to be reflected in the ensemble's auditory result. This was also indicated to be the case in the expert panel's mean evaluation increase of the CKC_EAR (view Table 4.5.2). The wrap-up interview qualitative discussion thread concerning a conductor's capability to impact sound and gain the result which he desires provided the gestural execution is clear in his mind, was a topic covered by both Conductor One in utterance 375 to 386 and Conductor Two in utterance 176 to 184 (view Appendix Y). The improvements made to the execution of the glide dab and glide punch emblems in training appear to have enhanced the ensemble's performance precision and auditory result.

Similar to Excerpt Two, the *March Opus 99* (Excerpt Three) clip revealed a mean increase in the expert panel's evaluation of expressivity and emblematic specificity of Conductor One and Two's gesture (view Table 4.1.3 and Table 4.3.3) though in this case it was used to facilitate improved execution of dab emblems. An increase in the expert panel's evaluation of the ensemble's expressivity and emblematic specificity were observed by participants in both conducting groups as was the CKC_EAR (view Table 4.2.3, Table 4.4.3 and Table 4.5.3) leaving it necessary to probe further into the qualitative data.

Musician Three, Six and Eight all mentioned Conductor One's increasing security, comfort level, confidence or willingness to try new things. These themes seem linked to what the musicians describe as movements that are more convincing, movements that are more thought-through or movements that have a good flow. Conductor Two's wrap-up interview discussion concerning a dual focus of attention and awareness of the present musical line and the work's larger form while effortlessly shifting between emblematic moments and large-scale lines (utterance 595-607) appears to be connected to the flow and contemplative movement described by the musicians. The musicians' comments are congruent with both Conductor One and Two's

large perceptual Likert continuum increase concerning his or her comfort/ confidence level with Excerpt Three (view Appendix S).

Musician One relayed that Conductor Two's gesture was elegant, clear and precise and that the ensemble played in a "light" way. This response confirms a relationship between the conductor's gestural precision and the sound's quality of lightness. Musician Eight stated that Conductor Two showed a good variation in her movements. As was previously mentioned in Excerpt One, it appears the conductor's gestures were differentiated enough to impact the ensemble's sound specificity. Musician Nine believed Conductor Two's gestures should have more weight, while Musician Five's feedback points out that a fortissimo entrance cue must not be too relaxed or small. It appears that the musicians were aware when Conductor Two's gesture didn't match the dynamics reflected in their music, even though they still performed their emblematically specific moments as written. If the musicians exhibited the same behaviour and chose to preserve the music's written dynamics for the control group, this could serve to explain why they too received an improved mean as judged by the expert panel.

In utterance 540 to 545 of his wrap-up interview, Conductor One, answered that the light dab gesture was the easiest emblem for him to incorporate in the musical moment (view Appendix Y). Conductor Two's self-evaluation response that indicated that her perceptual ability to kinesthetically perform the dab emblem was maintained as effectively both before and after Learning Session Two suggests it was easier for her to execute as well. In this particular excerpt, the notion of sound tracing seemed more prevalent than others. The conductor less concerned with maintaining tempo reinforces and models specific salient moments. This was described by Conductor One in his wrap-up interview as emphasizing the shape of the music with his shapes of movements. Conductor One's suggested practice of preparing multiple

emblems in advance to facilitate spontaneity and moment awareness (wrap-up interview utterance 382 to 386) could be connected to his confidence to perform emblems which come easier to him in the musical moment, like the lighter dab. This confidence increase was also confirmed by the musicians.

In Excerpt Four, *Florentiner March*, both of the conductor groups exhibited similar improvements in their point-light expressivity and point-light emblematic specificity mean values as judged by the expert panel (view Table 4.1.4 and Table 4.3.4). Musician Three and Eight both mentioned Conductor One and Conductor Two's increasing security or relaxed nature and confidence with Excerpt Four. Musician Six relayed that Conductor Two's lovely glide/press movement in the last bar was more holistic, as opposed to Musician Seven, who recorded that Conductor One didn't show a glide gesture in the second to last measure of the excerpt, where he obviously expected to see one. Musician One explained that Conductor One's bar sixteen's crescendo gesture fizzled out. Lack of gestural expressivity in moments that warrant it, like a crescendo or diminuendo, can cause a lack of sound expressivity. Musician Seven indicated Conductor One improved his breath cue for their entrances at the beginning, but that musicians also require breath cues for their entrances within the excerpt. This particular musician also recorded that musicians need a lot of air to play fortissimo. The ensemble's sound expressivity is connected to the conductor's breath impulse.

Musician Eight confirmed that Conductor Two sometimes had small gestures that could be done bigger, while Musician One verified some of the punches could be a little bit more "violent". It is believed that the gesture's weight and size connected to emblematic specificity influences the impact of the conductor's kinesthetic connection to the ensemble's auditory result. Therefore, one can deduce that the control group, who also displayed the appropriate weight and

size of their punch gestures and contained an increase mean value of emblematic gestural specificity, also improved their kinesthetic connection the ensemble's auditory result (View Table 4.3.4 and Table 4.5.4).

Chapter Five will contain discussion regarding the results, conclusions and research limitations of the study. Future research ideas and considerations will also be discussed.

Chapter 5: Discussion and Conclusion

To recapitulate, the main purpose of this doctoral research project was to explore the congruency or lack thereof between an ensemble's collective sound production and the conductor's displayed gestural palette. This study explored whether improved emblematic conducting technique increases the likelihood of an improved collective sound result in salient musical moments.

Real-time motion capture technology learning environments significantly enhanced the conductor's ability to be self-aware in an objective and unbiased manner. Emblematic coaching, body mind flow performance exercises, and individually articulated and coarticulated sonic-object reviews increased one's perception and understanding of specific conducting emblems. They were useful methods and approaches that aided the teaching of exhibited performance gestures.

Both the with-in method qualitative triangulation results and between-method triangulation results suggest that the undergraduate conducting participants in this study expanded both their expressive and emblematic movement vocabularies, and gained a heightened kinesthetic or new-found perceptual awareness of their conducting movement as it related to salient musical moments. The results and findings of this research investigation have revealed a number of multifaceted factors that appear to play a role in the success of the non-verbal communication of emblems, as well as the type of occurrences that can break down the relationship between these particular gestures and their corresponding sounds. This study also offered some clues as to whether emblematic coaching, body mind flow performance exercises and individually articulated and coarticulated sonic-object reviews increase one's perception of specific conducting emblems.

5.1 Discussion

This mixed methods research design assisted student-conductors in their performance of set emblems in a manner that allowed them to experiment with a greater depth of variance linked to each movement's execution. The depth of variance and kinesthetic experimentation used to convey expressivity in conducting, defined in Learning Session One's gestural review, as intent that demonstrates how the ensemble should shape the growth and decay of key musical ideas, more often than not, requires a conductor to depart from the standard mirrored beat pattern. This departure is not an inherent skill, and appropriate methods of instruction are required to reinforce gestural emblematic specificity connected to salient musical moments. The study's findings concerning the performance of emblems, strongly supported by the expert panel's evaluations, align with Grechesky (1985) and Sousa's (1988) conclusion that those who consciously improve and utilize these types of non-verbal illustrators can inspire more musically expressive performances.

As it pertained to the participants in this study, one's lack of training and gestural awareness of motion while in motion, or failure to recognize the manner in which one's motion simultaneously relates to the music's sound salience, were the primary reasons these items were initially neglected in practice. Simultaneous amplitude change regardless of where the sounds originate or were located spatially, was a factor that influenced the conductor's auditory fusion of note groupings. This factor was seemingly connected to a conductor's understanding of the ensemble's sound and his awareness of the corresponding emblem used to reflect the moment. Student-conductors learning to execute emblems or goal-directed actions must be made aware of a note grouping's simultaneous amplitude change or salient melodic features. Musical moments that embrace a forte-piano crescendo or volume adjustment, a unison volume moment, or an

ensemble adjustment that makes way for the entrance of a soloist or soli melodic line, all require a musician to watch the student-conductor. A musician's visual and aural perceptions are influenced by what he or she expects to see and hear in these types of moments. The physical manifestations of the student-conductor's simultaneous gestures are altered by his aural understanding of the expressive nature of the sounds produced by the musicians in the ensemble. These sounds either confirm or disconfirm his aural interpretation derived from the visual score.

Conductor training should address movement pedagogies that encourage a renewed awareness and analysis of the music's auditory scene (Bregman, 1990). This helps to strengthen and develop the audio-motor couplings of both the musicians and the conductor. In this study, the conductor group's new-found awareness of the salient musical moments in Learning Session Two and the movement analogies employed with the ensemble encouraged these audio-motor couplings. As was stated in the introduction, while there is evidence for anticipation in motor control (Rosenbaum, Cohen, Jax, Weiss, & van der Wel, 2007) more holistic or Gestalt-like principles of motor action (Klapp & Jagacinski, 2011) help the musician to discern the emblem by processing it as a single audio-action unit. The findings gathered from the pure and combined emblem identifications accuracy test scores support the belief that the perceptual understanding of an emblem is mutually exclusive.

Reform of post-secondary music education and conducting performance curricula should include activities where student-conductors review and interact with sound and gesture point-light display videos and coarticulated videos extracted from prior conducting performances and temporal sound tracing activities. These pedagogies are cognitively beneficial and significantly enhance the conductor's ability to be self-aware in an unbiased manner. Similarly, emblem identification tests where students match objective point-light gestures to sounds and vice versa

and identify the most congruent sonic-object from a group of sonic-objects, greatly enhanced the conductor's unbiased self-awareness. The point-light review session and emblem identification accuracy tests were important learning and pre-learning environments included in the instructional design of this research. Scientific mirror neuron theory and Ostling's (1977) research concerning the more philosophic Gestalt theory of expression support these methods.

The belief that an individual conductor can observe another conductor's action and mirror neurons position him in the same state that produced the other's action and enable him to understand the other conductor's intention, is the precise type of cognitive training student-conductors require. In this case, it is entirely plausible to interchange intention with expression. In the Gestalt theory of expression, it is believed that an observed expression can bring about a corresponding state of mind and provoke a corresponding kinesthetic experience in the observer. More importantly, the observed expression reminds one of other observations in which a similar expression played a role. The wrap-up interview findings revealed that specific point-light display videos viewed in the emblem identification accuracy tests, reminded the conductors of other observations in which a similar expression or gestural intent played a role.

While understanding gestural intent and expression is important, auditory feedback is necessary for an ensemble to exhibit sound expressivity and clearly synchronized emblems. Repp (1999) found that when auditory feedback was removed, performance expressivity changed. While both gesture and sound contain elements of expressivity that may or may not be congruently observed, the well-rehearsed timed motor adjustments musicians employ and the simultaneous auditory feedback they receive in doing so, is a factor that influences sound expressivity. This study supports the belief that conducting gestural expressivity is also influenced by auditory feedback and timed motor adjustments.

Training environments that utilize real-time motion capture technology significantly increased the conductor's ability to be self-aware in an objective and unbiased manner. Kinesthetic gestural feedback focused purely on the biomechanics of the movement promoted an objective awareness without other physical influences, like facial expressions. An increase in the perceived gestural conducting expressivity was observed in the expert panel's evaluations. These evaluations support a parallel between the increased gestural point-light expressivity of the conductor and the ensemble's improved sound expressivity.

March-style wind band excerpts that contain salient sound moments are valuable teaching tools for encouraging the growth and development of both gestural expressivity and emblematic specificity. The between-method triangulations and qualitative data collected from the participants and musicians support this notion. One factor that contributes to an increased perception of gestural expressivity is the increase in variance or gestural variety a conductor exhibits for a set emblem. The evidence concerning the heightened kinesthetic awareness and variance of movement of the conducting participants was predominantly substantiated in the wrap-up interview discussions and learning session self-evaluations. The conductors who received training recorded increases in their perceived ability to kinesthetically perform the emblems.

5.2 Research Limitations

With an intricate research design such as the one employed in this study, a limited number of conductors could participate. Future research projects that desire to explore a particular facet or segment of this design could sample larger groups. It is recommended that further explorations of this model include the collection of both qualitative and quantitative data.

Given the educational research purpose of this study, isolating the importance of one

factor such as a conductor who demonstrates exceptional emblematic specificity, but lacks expressivity or vice versa, has academic value; however the pedagogical goal was to encourage the development of both factors. Through careful experimental design of the expert panel's data collection procedures, the researcher preserved each student-conductor's initial performance via audio and point-light display video recordings collected in the motion capture sessions. These recordings reduced the number of audio, video and audiovisual examples the expert panel evaluated. This was done to minimize potential entrainment garnered from repetition.

5.3 Conclusion

The perceptual fusion of gesture and sound occurs more easily when the gesture contains a strong visual appearance of weight and obvious acceleration in accordance with the salience of a sudden sound. The perceptual fusion of a lighter sonic-object is connected to the fluidity and sustained quality of the movement displayed. The increased movement complexity of combined emblems increases the likelihood for them to be misinterpreted by musicians, even though it appears they are holistically perceived. Both pure emblems and combined emblems appear to be holistically understood by musicians, non-musicians, and conductors as single audio-action units. The synchronous production of emblems and sounds found in salient musical moments is not an inherent conducting skill, and thus, must not be overlooked when designing and developing conducting curricula. Undergraduate and graduate conductors alike, require training that involves both qualitative and quantitative learning environments.

Three-dimensional observational learning environments that utilize motion capture point-light display videos aid a conductor's kinesthetic self-reflection and motor awareness of emblematic gestures. Training designed to improve the congruent real-time communication between a conductor's exhibited gesture and the ensemble's performance should involve the

practice of pure and combined emblems, three-dimensional salience, breath/ entrance cues, fluid movement, torso position, head position and facial expression. Post-secondary conductor training offered to future music educators which employs a similar or slightly adapted pedagogical design encourages an approach to learning that fully engages the conductor to improve his technical conducting skills and kinesthetic awareness of motion, while in motion.

5.4 Future Research Ideas and Considerations

While emblematic gesture coaching exercises designed to emphasize salient sound moments using Laban's action principles helped to align the multimodal communication of gesture and sound, it's difficult to know the full extent to which the practice of stabilizing one's central axis made an impact, without looking deeper at the biomechanical properties of the displayed movements. The rich x, y and z coordinate motion capture data collected in Pre-Learning Session One in both Oslo and Calgary could be used to further investigate transference of weight or sagittal plane energy shifts linked to flexion and extension, axis stability and movement fluidity exhibited before, during and after each sonic-object. One could also compare the data of those that performed in tandem with the brief three to four second audio clips, to those who performed the thirty second excerpts. The large-scale movement properties prior to and after the learning session could be compared graphically using motiongrams, while the smaller-scale movement properties could be investigated more in terms of motor equivalence and anticipation.

A general more subtle observance was made regarding the Calgary conductors. Those who traced the soundscape of emblems with gesture utilized an asymmetrical arm movement and performed with an increased hand independence. It would be beneficial for myself or other researchers to quantitatively compare the Pre-Learning Session One motion capture technology

movement graphs of the eight sonic-objects, to the ones taken in Post-Learning Session One. This would allow one to concretely conclude whether or not the group exhibited an increased hand independence and asymmetrical movement capability that departed more frequently from the mirrored beat pattern.

Similarly, one could biomechanically explore the impact of the foundational movement practices and body mind flow learning objectives after the complete twelve week investment phase. Any of the abovementioned investigations or future research considerations discussed in this thesis, would not be made to produce a scientific standard of gestural conducting conditions that must be adhered to in order for certain performance results to occur, but to inform the scholarship of post-secondary conducting pedagogy and curriculum development.

Human conducting gesture as it relates to sound is a complex phenomenon. Interdisciplinary learning studies and projects such as this one, that bring together music, biomechanical approaches and elements of social cognition for the purpose of enhancing conducting performance pedagogy should continue to be encouraged.

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Appendix A: Information Letter for Participant Conductors and Musicians (Oslo)



July 2011

Dear Undergraduate University of Oslo and Norwegian Academy of Music Students,

Gesture is one of the main modes of communication conductors and music teachers have with their ensembles. In collaboration with my host supervisor, Dr. Rolf Inge Godøy, I am currently looking to answer if improved gestural conducting technique, can ultimately improve the sound quality and expressive excellence of one's ensemble with the help of motion capture technology and a small chamber wind ensemble.

For this study we are looking for **6 undergraduate academy students** who have no more than 2 semester courses in conductor training and are thinking of becoming future music teachers. The students can be in their first, second or third year of study.

For this study's chamber wind group we are looking for **undergraduate academy musicians** to form a group comprised of **1-2 flutes, 1 oboe, 1 bassoon, 2-3 clarinets, 1 alto saxophone, 1 tenor saxophone, 1 baritone saxophone, 2 horns, 2 trumpets, 2-3 trombones, 1 tuba or double bass and 3 percussionists.**

There will be a Pre and Post-Learning Session to collect emblematic gestures exhibited in 4 different marches using motion capture technology, a Pre and Post-Learning Session involving Gesture-Sound Accuracy Testing and a motion capture Learning Session that contains emblematic coaching. Auditory and visual feedback will be given by the musicians, researcher, other participants and an expert panel of gesture judges.

The project runs from the last week of August to mid September 2011. If you are interested in gaining some conductor training or playing in our chamber wind ensemble simply contact me via email by Friday, August 19, 2011.

Sincerely,

Wendy J. Freeman

Email: uofcsymphonicband@yahoo.com

Appendix B: Information Letter for Participant Conductors and Musicians (Calgary)



February 2012

Dear University of Calgary Undergraduate Music Students,

Gesture is one of the main modes of communication we have with our ensembles. In collaboration with my supervisor, Dr. Richard Heyman, I am currently looking to answer if improved gestural conducting technique, can ultimately improve the sound quality and expressive excellence of one's ensemble with the help of motion capture technology and a small chamber wind ensemble. One of the main contributions of my doctoral research at the University of Calgary is to aid undergraduates to improve their emblematic gestures.

For this study we are looking for **6 undergraduate music students** who have no more than 2 semester courses in conductor training and are thinking of becoming future music teachers. The students can be in their second, third or fourth year of study.

There will be a Pre and Post-Learning Motion Capture Session to collect emblematic gesture sound tracings extracted from various marches, a Pre and Post-Learning Session involving Gesture-Sound Accuracy Testing and a Learning Session performed by a randomly selected group that review emblematic specificity and expressivity and another that contains emblematic coaching. Auditory and visual feedback will be given by the researcher, other randomly selected participants, and an expert panel of gesture judges.

For this study's one chamber wind session and two accuracy test sessions we are looking for **undergraduate student musicians** to form a group comprised of **1-2 flutes, 1 oboe, 1 bassoon, 2 clarinets, 1 alto saxophone, 1 tenor saxophone, 1 trumpet, 2 trombones, 1 tuba or double bass and 1 percussionist.**

The project runs from early March to early April 2012. If you are interested in participating in this study as a conductor or wind ensemble musician simply contact me via email at uofcsymphonicband@yahoo.com by Friday, March 2, 2012.

Sincerely,

Wendy J. Freeman

Email: uofcsymphonicband@yahoo.com

Appendix C: Letter Determining Eligibility of Participant (Oslo)



August 2011

Dear Potential Participant,

Thank you for your interest in this study which is part of my research toward a doctoral degree in Interdisciplinary Studies. To determine if you are eligible to participate, please answer yes or no to the following four questions.

1. Are you currently enrolled as an undergraduate Musicology student at the University of Oslo?
2. Have you taken two or fewer half courses in conducting?
3. Are you available to attend six to seven sessions in the fourMs (Music, Mind, Motion, and Machines) collaborative interdisciplinary research laboratory over the next four weeks?

If you answered no to any of the above questions, you are unfortunately not eligible to participate in this study. If you answered yes to all of the above questions, please proceed to the following three questions.

4. Do you believe there is a connection between an ensemble's expressivity and a conductor's non-verbal illustrators or emblematic gestures exhibited in his or her conducting technique, and if so what factors play a role in the success of this form of non-verbal multi-modal communication?
5. In your view what type of occurrences break down the relationship between gesture and sound?
6. Would emblematic coaching and performance exercises increase one's accuracy to match a commonly exhibited gesture with its corresponding sound?

Please return this questionnaire to me via email or mail, my contact information is listed below. I will be in touch with you in the very near future to discuss your participation in this study.

Sincerely,

Wendy J. Freeman

Email: uofcsymphonicband@yahoo.com

Address: 202 Duehaugveien 6, Oslo, Norway 0851

Appendix D: Letter Determining Eligibility of Participant (Calgary)



February 2012

Dear Potential Participant,

Thank you for your interest in this study which is part of my research toward a doctoral degree in Interdisciplinary Studies. To determine if you are eligible to participate, please answer yes or no to the following four questions.

1. Are you currently enrolled as an undergraduate Music Education student at the University of Calgary?
2. Have you taken two or fewer half courses in conducting?
3. Are you available to attend two to three motion capture/ video sessions in the Human Performance Laboratory at the University of Calgary over the next four weeks?
4. Are you available to attend two to three accuracy test/ gesture review sessions in the Craigie Hall 007 Band Room at the University of Calgary over the next four weeks?

If you answered no to any of the above questions, you are unfortunately not eligible to participate in this study. If you answered yes to all of the above questions, please proceed to the following three questions.

1. Do you believe there is a connection between an ensemble's expressivity and a conductor's non-verbal illustrators or emblematic gestures exhibited in his or her conducting technique, and if so what factors play a role in the success of this form of non-verbal multi-modal communication?
2. In your view what type of occurrences break down the relationship between gesture and sound?
3. Would emblematic coaching and performance exercises increase one's accuracy to match a commonly exhibited gesture with its corresponding sound?

Please return this questionnaire to me via email or mail, my contact information is listed below. I will be in touch with you in the very near future to discuss your participation in this study.

Sincerely,

Wendy J. Freeman

Email: uofcsymphonicband@yahoo.com

Address: 2620 34th Avenue N.W. Calgary, AB. T2L 0V5

Appendix E: Participant Written Explanation Prior to Being Asked for Consent to Participate (Oslo)



Dear Potential Participant,

Coarticulated Conducting Teaching and Evaluating Gesture & Ensemble Sound Expression designed to enhance the future teaching practice of undergraduate music educators. Based on your responses to previous questions, you are eligible to be a participant. This study is in partial fulfillment of a doctoral degree in Interdisciplinary Studies from the University of Calgary. **One of the main contributions of my research is to aid instrumental educators to improve their emblematic gestures and increase their gestural vocabulary to execute more expressive gestures.** Your role in this research will be to explore if emblematic coaching and gestural review exercises increase one's accuracy to match a commonly exhibited gesture with its corresponding sound, match a sound with its corresponding gesture, and identify correct coarticulated gesture sound combinations from groups of coarticulated combinations. This will be accomplished over a series of four to six sessions using a participatory action research design model and the assistance of audio/video capture and motion capture technology.

Pre-Learning Session One and Post-Learning Session One, both 20-30 minutes in length, will occur in the fourMs (Music, Mind, Motion, and Machines) collaborative interdisciplinary research laboratory to collect motion and auditory data linked to your emblematic gestures found in various march excerpts. Pre-Learning Session Two and Post-Learning Session Two, both 1 hour in length, will take place in the fourMs laboratory where you will undergo accuracy testing of coarticulated gesture/ sound combinations, and gesture/sound, sound/gesture matching. A randomly selected group will perform Learning Sessions One and Two, held on campus in the fourMs laboratory. In Learning Session One, 2 hours in length, the participants will review point light displays, auditory musical clips, and point light/ audio clips that contain varied degrees of expressivity and specificity taken from Pre-Learning Session One. Learning Session Two 1 hour in length, involves private emblematic and expressive conducting coaching with the researcher where previous coarticulated sound and motion capture technology, real time motion capture and semi-professional musician feedback will be used as instructional tools to raise awareness, expand, refine, and experiment with the technical movement aspects of emblematic gesture as it relates to your aural and kinesthetic perceptions of the ongoing chamber performance. You will complete an entrance and exit questionnaire after Learning Session Two to help facilitate self-reflection. The final Post-Learning Session, held in Office 319, will be a 1 hour audio video recorded wrap-up interview conducted to reveal testing results and to draw conclusions and provide recommendations and direction for future research.

If you would like to be a part of this study, please contact me. Upon your confirmation of acceptance, I will contact you to arrange a time for our first session to occur mid to late August. I will also send the informed consent form for you to sign and hand in prior to beginning our first session. Thank you for being a part of this research. I look forward to working with you to accomplishing these aims.

Sincerely,

Wendy J. Freeman

Email: uofcsymphonicband@yahoo.com

Address: 202 Duehaugveien 6, Oslo, Norway 0851

Appendix F: Participant Written Explanation Prior to Being Asked for Consent to Participate (Calgary)



Dear Potential Participant,

Thank you for showing interest in my research on ***Gestural Kinesthesia and Conducting: New Methods and Approaches to Teaching and Evaluating Gesture*** designed to enhance the future teaching practice of undergraduate music educators. Based on your responses to previous questions, you are eligible to be a participant. This study is in partial fulfillment of a doctoral degree in Interdisciplinary Studies from the University of Calgary.

One of the main contributions of my research is to aid future instrumental educators to improve their emblematic gestures and increase their gestural vocabulary to execute more expressive gestures. Your role in this research will be to explore if emblematic coaching and gestural review exercises increase one's accuracy to match a commonly exhibited gesture with its corresponding sound, match a sound with its corresponding gesture, and identify correct coarticulated gesture sound combinations from groups of coarticulated combinations. This will be accomplished over a series of five to seven sessions using a participatory action research design model and the assistance of audio/video capture and motion capture technology.

Pre-Learning Session One and Post-Learning Session One, both 20-30 minutes in length, will occur in the Human Performance Laboratory to collect motion data linked to your emblematic gestures extracted from various march excerpts. Pre-Learning Session Two and Post-Learning Session Two, both 1 hour in length, will take place in the Craigie Hall 007 Band Room where you will undergo accuracy testing of coarticulated gesture/ sound combinations, and gesture/sound, sound/gesture matching. A randomly selected group will perform Learning Sessions One and Two, held on campus in the Craigie Hall 007 Band Room. In Learning Session One, 2 hours in length, the participants will review point light displays, auditory musical clips, and point light/ audio clips that contain varied degrees of expressivity. Learning Session Two, 1 hour in length, involves private emblematic and expressive conducting coaching with the researcher where previous coarticulated sound and motion capture technology clips, video capture and semi-professional musician feedback will be used as instructional tools to raise awareness, expand, refine, and experiment with the technical movement aspects of emblematic gesture as it relates to your aural and kinesthetic perceptions of the ongoing chamber performance. You will complete an entrance and exit questionnaire after Learning Session Two to help facilitate self-reflection. The final Post-Learning Session, held in Office F215, will be a 1 hour audio video recorded wrap-up interview conducted to reveal testing results and to draw conclusions and provide recommendations and direction for future research.

If you would like to be a part of this study, please contact me. Upon your confirmation of acceptance, I will contact you to arrange a time for our first session to occur early March. I will also send the informed consent form for you to sign and hand in prior to beginning our first session. Thank you for being a part of this research. I look forward to working with you to accomplishing these aims.

Sincerely,

Wendy J. Freeman

Email: uofcsymphonicband@yahoo.com

Address: 2620 34th Avenue N.W. Calgary, AB. T2L 0V5

Appendix G: Undergraduate Musicology Student Participant Consent Form (Conductor Experimental Group- Oslo)



Thank you for confirming your acceptance to be a participant in a research study of gestural kinesthesia and conducting that looks at *coarticulated conducting Teaching and Evaluating gesture & ensemble sound expression* designed to enhance the future teaching practice of undergraduate musicologists. Please read this consent form and ask any questions you may have before agreeing to be in this study. This study is being conducted by: Wendy J. Freeman and the University of Calgary.

Procedures:

Pre-Learning Session One and Post-Learning Session One, both 20-30 minutes in length, will occur in the FourMs (Music, Mind, Motion, and Machines) collaborative interdisciplinary research laboratory to collect motion and auditory data linked to my emblematic gestures found in various march excerpts. Pre-Learning Session Two and Post-Learning Session Two will be 1 hour in length and take place in the FourMs laboratory where I will undergo accuracy testing of coarticulated gesture sound combinations and gesture/sound, sound/gesture accuracy matching. If I am randomly selected, in Learning Session One, 2 hours in length, held in the FourMs laboratory, I will review point light displays, auditory musical clips, and point light display/audio clips that contain varied degrees of expressivity and specificity taken from Pre-Learning Session One. If I am randomly selected, I will perform Learning Session Two in the FourMs laboratory where I will receive private emblematic and expressive conducting coaching with the researcher for 1 hour. Here previously collected coarticulated motion capture and audio clips, motion capture technology and semi-professional musician survey feedback will be used as instructional tools to raise awareness, expand, refine, and experiment with the technical movement aspects of emblematic gesture as it relates to my aural and kinesthetic perceptions of the ongoing chamber performance. I will complete an entrance and exit questionnaire after Learning Session Two to help facilitate self-reflection. The final Post-Learning Session held in Office 317, will be a 1 hour audio/video recorded wrap-up interview conducted to reveal testing results and to draw conclusions and provide recommendations and direction for future research.

Risks and Benefits of Being in the Study:

The risks involved in this study are similar to those encountered by subjects in everyday life. As a participant in this study I will benefit from a new understanding of emblematic musical gesture and expressive musical gesture and sound. Both the published results and pedagogical implications provided from this research may be used by post-secondary educators to construct appropriate instructional programs for undergraduate music education students. This study will inform scholarship in conducting performance pedagogy that addresses the impact of both auditory and kinesthetic elements, through conference presentations and articles which will report the understanding gained from motion capture technology laboratory sessions, an entrance and exit questionnaire, chamber musician surveys, gestural reviews, accuracy testing and interviews.

Confidentiality:

As a participant, I will be assigned a numeric pseudonym and only my numeric pseudonym will be cited in the research, future conference presentations and articles. All responses obtained from the accuracy tests and my wrap-up interview dialogue will be open for citation. Before the publication of any data, the researcher will make my qualitative textual contributions available for me to review. At the end of the two weeks, the researcher will contact me electronically to ensure the proper collection of any revisions and to verify my complete satisfaction with the data. All of the data and records of this study will be kept private and will be stored electronically under password protection. Only the researcher will have access to the files. All of the data will be retained indefinitely for possible future use. The main purpose of the collected data is to inform this PhD project. Presentations of study results may include point-light displays (motion capture videos) where my individual identity will not be discernible and/or audio recordings. All video recordings will be used for the purpose of data analysis only and will never be displayed in public. Absolute anonymity or confidentiality cannot be guaranteed due to the group nature of several aspects of participation as the other participants, chamber musicians and panel of judges will be aware of my participation in this study.

Voluntary Nature of the Study:

I understand that my participation in this study is absolutely voluntary. As a participant, I have the right to withhold my reflections on topics or questions I do not feel comfortable responding to. I understand there is neither reward for participating nor consequence for choosing not to participate. My decision whether or not to participate will not affect my current or future relations with the University of Calgary. If I decide to participate, I have the right to withdraw from the study at any point without affecting those relationships. If this occurs the information contributed to the point of withdraw will remain and may be cited using only a pseudonym of my name.

Contacts and Questions:

This study has been reviewed and approved by the Conjoint Faculties Ethics Research Board at the University of Calgary. I understand that if I have any questions regarding my rights as a research participant or this study, I may contact Russell Burrows with the Conjoint Faculties Ethics Research Board at (403) 220-3782. If I have any additional questions regarding the research I may contact email Wendy Freeman at uofcsymphonicband@yahoo.com or Rolf Inge Godøy at (+47) 22854064.

I have read the above information. I have asked questions and received answers. I consent to participate in the study.

Participant's Name (Please Print)

Participant's Signature

Date

Researcher's Signature

Date

Appendix H: Undergraduate Musicology Student Participant Consent Form (Conductor Control Group- Oslo)



Thank you for confirming your acceptance to be a participant in a research study of gestural kinesthesia and conducting that looks at *coarticulated conducting Teaching and Evaluating gesture & ensemble sound expression* designed to enhance the future teaching practice of undergraduate musicologists. Please read this consent form and ask any questions you may have before agreeing to be in this study. This study is being conducted by: Wendy J. Freeman and the University of Calgary.

Procedures:

Pre-Learning Session One and Post-Learning Session One, both 20-30 minutes in length, will occur in the FourMs (Music, Mind, Motion, and Machines) collaborative interdisciplinary research laboratory to collect motion and auditory data linked to my emblematic gestures found in various march excerpts. Pre-Learning Session Two and Post-Learning Session Two will be 1 hour in length and take place in the FourMs laboratory where I will undergo accuracy testing of coarticulated gesture sound combinations and gesture/sound, sound/gesture accuracy matching. I will complete an entrance and exit questionnaire after Learning Session Two to help facilitate self-reflection. The final Post-Learning Session held in Office 317, will be a 1 hour video recorded wrap-up interview conducted to reveal testing results and to draw conclusions and provide recommendations and direction for future research.

Risks and Benefits of Being in the Study:

The risks involved in this study are similar to those encountered by subjects in everyday life. As a participant in this study I will benefit from a new understanding of emblematic musical gesture and expressive musical gesture and sound. Both the published results and pedagogical implications provided from this research may be used by post-secondary educators to construct appropriate instructional programs for undergraduate music education students. This study will inform scholarship in conducting performance pedagogy that addresses the impact of both auditory and kinesthetic elements, through conference presentations and articles which will report the understanding gained from motion capture technology laboratory sessions, an entrance and exit questionnaire, chamber musician surveys, gestural reviews, accuracy testing and interviews.

Confidentiality:

As a participant, I will be assigned a numeric pseudonym and only my numeric pseudonym will be cited in the research, future conference presentations and articles. All responses obtained from my wrap-up interview dialogue will be open for citation. Before the publication of any data, the researcher will make my qualitative textual contributions available for me to review. At the end of the two weeks, the researcher will contact me electronically to ensure the proper collection of any revisions and to verify my complete satisfaction with the data. All of the data and records of this study will be kept private and will be stored electronically under password protection. Only the researcher will have access to the files. The main purpose of the collected data is to inform this PhD project. Presentations of study results may include point-light displays (motion capture videos) where my individual identity will not be discernible and or audio recordings. All video recordings will be used for the purpose of data analysis only and will never be displayed in public. Absolute anonymity or confidentiality cannot be guaranteed due to the group nature of several aspects of participation as the other participants, chamber musicians and panel of judges will be aware of my participation in this study.

Voluntary Nature of the Study:

I understand that my participation in this study is absolutely voluntary. As a participant, I have the right to withhold my reflections on topics or questions I do not feel comfortable responding to. I understand there is neither reward for participating nor consequence for choosing not to participate. My decision whether or not to participate will not affect my current or future relations with the University of Calgary or the University of Oslo. If I decide to participate, I have the right to withdraw from the study at any point without affecting those relationships. If this occurs the information contributed to the point of withdraw will remain and may be cited using only a pseudonym of my name.

Contacts and Questions:

This study has been reviewed and approved by the Conjoint Faculties Ethics Research Board at the University of Calgary. I understand that if I have any questions regarding my rights as a research participant or this study, I may contact Russell Burrows with the Conjoint Faculties Ethics Research Board at (403) 220-3782. If I have any additional questions regarding the research I may contact Wendy Freeman at uofcsymphonicband@yahoo.com or Rolf Inge Godøy at (+47) 22854064.

I have read the above information. I have asked questions and received answers. I consent to participate in the study.

Participant's Name (Please Print)

Participant's Signature

Date

Researcher's Signature

Date

Appendix I: Undergraduate Music Education Student Participant Consent Form (Conductor Experimental Group- Calgary)



Thank you for confirming your acceptance to be a participant in a research study of gestural kinesthesia and conducting that looks at *Gestural Kinesthesia and Conducting: New Methods and Approaches to Teaching and Evaluating Gesture* designed to enhance the future teaching practice of undergraduate music educators. Please read this consent form and ask any questions you may have before agreeing to be in this study. This study is being conducted by: Wendy J. Freeman and the University of Calgary.

Procedures:

Pre-Learning Session One and Post-Learning Session One, both 50 minutes in length, will occur in the Human Performance Laboratory Kinesiology Building Block B to collect temporal sound tracing motion data of my emblematic gestures performed in synchrony with sound excerpts extracted from various marches. Pre-Learning Session Two and Post-Learning Session Two will be 2 hours in length and take place in the Craigie Hall F001 Band Room where I will undergo accuracy testing of coarticulated gesture sound combinations and gesture/sound, and sound/gesture accuracy matching. In Learning Session One, 2 hours in length, held in the Craigie Hall F001 Band Room, I will perform body, mind, flow dance exercises and will review point light displays, auditory musical clips, and point light display/audio clips that contain varied degrees of expressivity and specificity. I will perform Learning Session Two in the Craigie Hall F001 Band Room where I will receive private emblematic and expressive conducting coaching with the researcher for 1 hour. Here previously collected coarticulated motion capture and audio clips, video technology and semi-professional musician survey feedback will be used as instructional tools to raise awareness, expand, refine, and experiment with the technical movement aspects of emblematic gesture as it relates to my aural and kinesthetic perceptions of the ongoing chamber performance. I will complete an entrance and exit questionnaire after Learning Session Two to help facilitate self-reflection. The final Post-Learning Session held in Craigie Hall Office F215, will be a 1 hour audio/video recorded wrap-up interview conducted to reveal testing results and to draw conclusions and provide recommendations and direction for future research.

Risks and Benefits of Being in the Study:

Both the published results and pedagogical implications provided from this research may be used by post-secondary educators to construct appropriate instructional programs for undergraduate music education students. This study will inform scholarship in conducting performance pedagogy that addresses the impact of both auditory and kinesthetic elements, through conference presentations and articles which will report the understanding gained from motion capture technology laboratory sessions, an entrance and exit questionnaire, chamber musician feedback, gestural reviews, accuracy testing and interviews.

Confidentiality:

As a participant, I will be assigned a numeric pseudonym and only my numeric pseudonym will be cited in the research, future conference presentations and articles. All responses obtained from chamber musician feedback, questionnaires, gestural reviews, my accuracy test results and wrap-up interview dialogue will be open for citation. Before the publication of any data, the researcher will make my qualitative textual contributions available for me to review. At the end of the two weeks, the researcher will contact me electronically to ensure the proper collection of any revisions and to verify my complete satisfaction with the data. All of the data and records of this study will be kept private and will be stored electronically under password protection. Only the researcher will have access to the files. All of the data will be retained indefinitely for possible future use. The main purpose of the collected data is to inform this PhD project. Presentations of study results may include point-light displays (motion capture videos) where my individual identity will not be discernible and or audio recordings. All video recordings will be used for the purpose of data analysis only and will never be displayed in public. Absolute anonymity or confidentiality

cannot be guaranteed due to the group nature of several aspects of participation as the other participants, chamber musicians and panel of judges will be aware of my participation in this study.

Voluntary Nature of the Study:

I understand that my participation in this study is absolutely voluntary. As a participant, I have the right to withhold my reflections on topics or questions I do not feel comfortable responding to. I understand there is neither reward for participating nor consequence for choosing not to participate. My decision whether or not to participate will not affect my current or future relations with the University of Calgary. If I decide to participate, I have the right to withdraw from the study at any point without affecting those relationships. If this occurs the information contributed to the point of withdraw will remain and may be cited using only a numeric pseudonym of my name.

Contacts and Questions:

This study has been reviewed and approved by the Conjoint Faculties Ethics Research Board at the University of Calgary. I understand that if I have any questions regarding my rights as a research participant or this study, I may contact Russell Burrows with the Conjoint Faculties Ethics Research Board at (403) 220-3782. If I have any additional questions regarding the research I may contact Dr. Richard Heyman at (403) 220-6441 and or Wendy Freeman at (403) 702-0493. I have read the above information. I have asked questions and received answers. I consent to participate in the study.

Participant's Name (Please Print)

Participant's Signature

Date

Researcher's Signature

Date

Appendix J: Undergraduate Music Education Student Participant Consent Form (Conductor Control Group- Calgary)



Thank you for confirming your acceptance to be a participant in a research study of gestural kinesthesia and conducting that looks at ***Gestural Kinesthesia and Conducting: New Methods and Approaches to Teaching and Evaluating Gesture*** designed to enhance the future teaching practice of undergraduate music educators. Please read this consent form and ask any questions you may have before agreeing to be in this study. This study is being conducted by: Wendy J. Freeman and the University of Calgary.

Procedures:

Pre-Learning Session One and Post-Learning Session One, both 50 minutes in length, will occur in the Human Performance Laboratory Kinesiology Building Block B to collect temporal sound tracing motion data of my emblematic gestures performed in synchrony with sound excerpts extracted from various marches. Pre-Learning Session Two and Post-Learning Session Two will be 2 hours in length and take place in the Craigie Hall F001 Band Room where I will undergo accuracy testing of coarticulated gesture sound combinations and gesture/sound, and sound/gesture accuracy matching. The final Post-Learning Session held in Craigie Hall Office F215, will be a 1 hour audio/video recorded wrap-up interview conducted to reveal testing results and to draw conclusions and provide recommendations and direction for future research.

Risks and Benefits of Being in the Study:

Both the published results and pedagogical implications provided from this research may be used by post-secondary educators to construct appropriate instructional programs for undergraduate music education students. This study will inform scholarship in conducting performance pedagogy that addresses the impact of both auditory and kinesthetic elements, through conference presentations and articles which will report the understanding gained from motion capture technology laboratory sessions, an entrance and exit questionnaire, chamber musician feedback, gestural reviews, accuracy testing and interviews.

Confidentiality:

As a participant, I will be assigned a numeric pseudonym and only my numeric pseudonym will be cited in the research, future conference presentations and articles. All responses obtained from chamber musician feedback, questionnaires, gestural reviews, my accuracy test results and wrap-up interview dialogue will be open for citation. Before the publication of any data, the researcher will make my qualitative textual contributions available for me to review. At the end of the two weeks, the researcher will contact me electronically to ensure the proper collection of any revisions and to verify my complete satisfaction with the data. All of the data and records of this study will be kept private and will be stored electronically under password protection. Only the researcher will have access to the files. All of the data will be retained indefinitely for possible future use. The main purpose of the collected data is to inform this PhD project. Presentations of study results may include point-light displays (motion capture videos) where my individual identity will not be discernible and or audio recordings. All video recordings will be used for the purpose of data analysis only and will never be displayed in public. Absolute anonymity or confidentiality cannot be guaranteed due to the group nature of several aspects of participation as the other participants, chamber musicians and panel of judges will be aware of my participation in this study.

Voluntary Nature of the Study:

I understand that my participation in this study is absolutely voluntary. As a participant, I have the right to withhold my reflections on topics or questions I do not feel comfortable responding to. I understand there is neither reward for participating nor consequence for choosing not to participate. My decision whether or not to participate will not affect my current or future relations with the University of Calgary. If I decide to participate, I have the right to withdraw from the study at any point without affecting those relationships. If this occurs the information contributed to the point of withdraw will remain and may be cited using only a numeric pseudonym of my name.

Contacts and Questions:

This study has been reviewed and approved by the Conjoint Faculties Ethics Research Board at the University of Calgary. I understand that if I have any questions regarding my rights as a research participant or this study, I may contact Russell Burrows with the Conjoint Faculties Ethics Research Board at (403) 220-3782. If I have any additional questions regarding the research I may contact Dr. Richard Heyman at (403) 220-6441 and or Wendy Freeman at (403) 702-0493. I have read the above information. I have asked questions and received answers. I consent to participate in the study.

Participant's Name (Please Print)

Participant's Signature

Date

Researcher's Signature

Date

Appendix K: Ensemble Chamber Musician Consent Form (Oslo)



Thank you for your willingness to be a chamber musician participant in a research study of gestural kinesthesia and conducting that looks at *coarticulated conducting Teaching and Evaluating gesture and ensemble sound expression* designed to enhance the future teaching practice of undergraduate and graduate conductors. Please read this consent form and ask any questions you may have before agreeing to be in this study. This study is being conducted by: Wendy J. Freeman and the University of Calgary.

Procedures:

Pre-Learning Session One and Post-Learning Session One, each 3 to 3.5 hours in length, will occur in the FourMs (Music, Mind, Motion, and Machines) collaborative interdisciplinary research laboratory to collect auditory data of my musical performance linked to each undergraduate conducting student's emblematic gestures found in various march excerpts. Here my written survey feedback identifying emblems and their qualities will be used to target emblems that require further coaching and instructional experimentation. Pre-Learning Session Two and Post-Learning Session Two will be 1 hour in length and take place in the FourMs laboratory where I will undergo accuracy testing of coarticulated gesture sound combinations and gesture/sound, sound/gesture accuracy matching. In Learning Session Two held in the FourMs laboratory for 3 hours, my written feedback will be used as an instructional tool to raise awareness concerning the execution of each one of the undergraduate's emblematic gestures.

Confidentiality:

As a chamber music participant, I will only be identified by my instrument's name and only my instrument family grouping will be cited in the research in aggregate form in future conference presentations and articles. Only the auditory recording data of my musical performance will be reviewed by others separately and jointly with point light displays and utilized to draw sound comparisons and conclusions from gesture surveys and accuracy tests, no video will be reported nor reviewed. All responses obtained from my written feedback forms and emblematic gestural surveys will be open for citation. All of the data and records of this study will be kept private and will be stored electronically under password protection. Only the researcher will have access to the files. All of the data will be retained indefinitely for possible future use. Confidentiality among the musicians and participants is partially limited in the laboratory sessions due to the group nature of ensemble participation.

Voluntary Nature of the Study:

I understand that my participation in this study is absolutely voluntary. As a participant, I have the right to withhold my reflections on topics or questions I do not feel comfortable responding to. I understand there is neither reward for participating nor consequence for choosing not to participate. My decision whether or not to participate will not affect my current or future relations with the University of Calgary or the University of Oslo. If I decide to participate, I have the right to withdraw from the study at any point without affecting those relationships. If this occurs, the information contributed to the point of withdraw will remain and may be cited only in aggregate form.

Contacts and Questions:

This study has been reviewed and approved by the Conjoint Faculties Ethics Research Board at the University of Calgary. I understand that if I have any questions regarding my rights as a research participant or this study, I may contact Russell Burrows with the Conjoint Faculties Ethics Research Board at (403) 220-3782. If I have any additional questions regarding the research I may contact Wendy Freeman at uofcsymphonicband@yahoo.com or Rolf Inge Godøy at (+47) 22854064.

I have read the above information. I have asked questions and received answers. I consent to participate in the study.

Participant's Name (Please Print)

Participant's Signature

Date

Appendix L: Ensemble Chamber Musician Consent Form (Calgary)



Thank you for your willingness to be a chamber musician participant in a research study of gestural kinesthesia and conducting that looks at *Gestural Kinesthesia and Conducting: New Methods and Approaches to Teaching and Evaluating Gesture* designed to enhance the future teaching practice of undergraduate music educators. Please read this consent form and ask any questions you may have before agreeing to be in this study. This study is being conducted by: Wendy J. Freeman and the University of Calgary.

Procedures:

Pre-Learning Session Two and Post-Learning Session Two will be 2 hours in length and take place in the Craigie Hall F001 Band Room where I will undergo accuracy testing of coarticulated gesture sound combinations and gesture/sound, sound/gesture accuracy matching. In Learning Session Two held in the Craigie Hall F001 Band Room for 3 hours, I will perform 4 march excerpts with the undergraduate conducting participants where my written feedback will be used as an instructional tool to raise awareness concerning the execution of each one of their emblematic gestures.

Confidentiality:

As a chamber music participant, I will only be identified by my instrument's name and only my instrument family grouping will be cited in the research in aggregate form in future conference presentations and articles. Only the auditory recording data of my musical performance will be reviewed by others separately and jointly with point light displays and utilized to draw sound comparisons and conclusions from gesture surveys and accuracy tests, no video will be reported nor reviewed. All responses obtained from my written feedback forms and emblematic gestural surveys will be open for citation. All of the data and records of this study will be kept private and will be stored electronically under password protection. Only the researcher will have access to the files. All of the data will be retained indefinitely for possible future use. Confidentiality among the musicians and participants is partially limited in the laboratory sessions due to the group nature of ensemble participation.

Voluntary Nature of the Study:

I understand that my participation in this study is absolutely voluntary. As a participant, I have the right to withhold my reflections on topics or questions I do not feel comfortable responding to. I understand there is neither reward for participating nor consequence for choosing not to participate. My decision whether or not to participate will not affect my current or future relations with the University of Calgary. If I decide to participate, I have the right to withdraw from the study at any point without affecting those relationships. If this occurs, the information contributed to the point of withdraw will remain and may be cited only in aggregate form.

Contacts and Questions:

This study has been reviewed and approved by the Conjoint Faculties Ethics Research Board at the University of Calgary. I understand that if I have any questions regarding my rights as a research participant or this study, I may contact Russell Burrows with the Conjoint Faculties Ethics Research Board at (403) 220-3782. If I have any additional questions regarding the research I may contact Wendy Freeman at uofcsymphonicband@yahoo.com or Dr. Richard Heyman at (403) 220-6441.

I have read the above information. I have asked questions and received answers. I consent to participate in the study.

Participant's Name (Please Print)

Participant's Signature

Date

Appendix M: Non-Musician Consent Form (Calgary)



Thank you for your willingness to be a non-musician participant in a research study of gestural kinesthesia and conducting that looks at *Gestural Kinesthesia and Conducting: New Methods and Approaches to Teaching and Evaluating Gesture* designed to enhance the future teaching practice of undergraduate music educators. Please read this consent form and ask any questions you may have before agreeing to be in this study. This study is being conducted by: Wendy J. Freeman and the University of Calgary.

Procedures:

Pre-Learning Session Two and Post-Learning Session Two will be 1 hour in length and take place in the Human Performance Laboratory where I will undergo accuracy testing of coarticulated gesture sound combinations and gesture/sound, sound/gesture accuracy matching.

Confidentiality:

As a participant, I will not be identified by name and only the non-musician group will be cited in the research in aggregate form in future conference presentations and articles. All of the data obtained from my accuracy test scores will be open for citation. All of the data and records of this study will be kept private and will be stored electronically under password protection. Only the researcher will have access to the files. All of the data will be retained indefinitely for possible future use.

Voluntary Nature of the Study:

I understand that my participation in this study is absolutely voluntary. As a participant, I have the right to withhold my reflections on questions I do not feel comfortable responding to. I understand there is neither reward for participating nor consequence for choosing not to participate. My decision whether or not to participate will not affect my current or future relations with the University of Calgary. If I decide to participate, I have the right to withdraw from the study at any point without affecting those relationships. If this occurs, the information contributed to the point of withdraw will remain and may be cited only in aggregate form.

Contacts and Questions:

This study has been reviewed and approved by the Conjoint Faculties Ethics Research Board at the University of Calgary. I understand that if I have any questions regarding my rights as a research participant or this study, I may contact Russell Burrows with the Conjoint Faculties Ethics Research Board at (403) 220-3782. If I have any additional questions regarding the research I may contact Wendy Freeman at uofcsymphonicband@yahoo.com or Dr. Richard Heyman at (403) 220-6441.

I have read the above information. I have asked questions and received answers. I consent to participate in the study.

Participant's Name (Please Print)

Participant's Signature

Date

Appendix N: Expert Panel of Gesture Judges Consent Form (Oslo)



Thank you for your willingness to be a participant on the expert panel of gestural judges in a research study that looks at *coarticulated conducting Teaching and Evaluating gesture and ensemble sound expression* designed to enhance the future teaching practice of Norwegian undergraduate and master musicology and academy students. Please read this consent form and ask any questions you may have before agreeing to be in this study. This study is being conducted by: Wendy J. Freeman and the University of Calgary.

Procedures:

I will provide written feedback and gestural reviews of point light displays, auditory musical clips, and point light display/audio clips taken from Pre-Learning Session One captured in the FourMs (Music, Mind, Motion, and Machines) collaborative interdisciplinary research laboratory to help target emblems and phrases that require further coaching and instructional experimentation. This will occur in the last week of August for 2 hours in my office location by appointment with the researcher. In the same manner only in the third week of September, I will provide written feedback and gestural reviews taken from Post-Learning Session One to evaluate the execution of gestures. In addition, in the second week of September in my office by appointment, I will provide written feedback and gestural reviews of point light displays, auditory musical clips, and point light display/audio clips that contain varied degrees of expressivity and specificity taken from Learning Session Two, a coaching session held in the FourMs laboratory.

Confidentiality:

As a member of the expert panel of gestural judges, I will be assigned a numeric pseudonym and only my numeric pseudonym, age and academic institution will be cited in the research, future conference presentations and articles. All responses obtained from my written feedback and gestural reviews will be open for citation. All of the data and records of this study will be kept private and will be stored electronically under password protection. Only the researcher will have access to the files. All of the data will be retained indefinitely for possible future use. Confidentiality among the judges and participants is partially limited should you decide to complete your first set of gestural reviews in the Learning Session focus group held on September 5th in the FourMs laboratory, rather than the last week of August.

Voluntary Nature of the Study:

I understand that my participation in this study is absolutely voluntary. As a participant, I have the right to withhold my reflections on topics or questions I do not feel comfortable responding to. I understand there is neither reward for participating nor consequence for choosing not to participate. My decision whether or not to participate will not affect my current or future relations with the University of Calgary. If I decide to participate, I have the right to withdraw from the study at any point without affecting those relationships. If this occurs, the information contributed to the point of withdraw will remain and may be cited.

Contacts and Questions:

I understand that if I have any questions regarding my rights as a research participant or this approved study, I may contact Russell Burrows with the Conjoint Faculties Ethics Research Board at the University of Calgary at (403) 220-3782. If I have any additional questions regarding the research I may contact Wendy Freeman at uofcsymphonicband@yahoo.com or Dr. Richard Heyman at (403) 220-6441. I have read the above information. I have asked questions and received answers. I consent to participate in the study.

Participant's Name (Please Print)

Participant's Signature

Date

Appendix O: Expert Panel of Gesture Judges Consent Form (Calgary)



Thank you for your willingness to be a participant on the expert panel of gestural judges in a research study that looks at *coarticulated conducting Teaching and Evaluating gesture and ensemble sound expression* designed to enhance the future teaching practice of Norwegian undergraduate and master musicology and academy students. Please read this consent form and ask any questions you may have before agreeing to be in this study. This study is being conducted by: Wendy J. Freeman and the University of Calgary.

Procedures:

I will provide written feedback and gestural reviews of point light displays, auditory musical clips, and point light display/audio clips taken from Pre-Learning Session One captured in the FourMs (Music, Mind, Motion, and Machines) collaborative interdisciplinary research laboratory to help target emblems and phrases that require further coaching and instructional experimentation. This will occur in the last week of April for 2 hours in my office location by appointment with the researcher. In the same manner only in the third week of May, I will provide written feedback and gestural reviews taken from Post-Learning Session One to evaluate the execution of gestures. In addition, in the second week of May in my office by appointment, I will provide written feedback and gestural reviews of point light displays, auditory musical clips, and point light display/audio clips that contain varied degrees of expressivity and specificity taken from Learning Session Two, a coaching session held in the FourMs laboratory.

Confidentiality:

As a member of the expert panel of gestural judges, I will be assigned a numeric pseudonym and only my numeric pseudonym, age and academic institution will be cited in the research, future conference presentations and articles. All responses obtained from my written feedback and gestural reviews will be open for citation. All of the data and records of this study will be kept private and will be stored electronically under password protection. Only the researcher will have access to the files. All of the data will be retained indefinitely for possible future use.

Voluntary Nature of the Study:

I understand that my participation in this study is absolutely voluntary. As a participant, I have the right to withhold my reflections on topics or questions I do not feel comfortable responding to. I understand there is neither reward for participating nor consequence for choosing not to participate. My decision whether or not to participate will not affect my current or future relations with the University of Calgary. If I decide to participate, I have the right to withdraw from the study at any point without affecting those relationships. If this occurs, the information contributed to the point of withdraw will remain and may be cited.

Contacts and Questions:

I understand that if I have any questions regarding my rights as a research participant or this approved study, I may contact Russell Burrows with the Conjoint Faculties Ethics Research Board at the University of Calgary at (403) 220-3782. If I have any additional questions regarding the research I may contact Wendy Freeman at uofcsymphonicband@yahoo.com or Dr. Richard Heyman at (403) 220-6441. I have read the above information. I have asked questions and received answers. I consent to participate in the study.

Participant's Name (Please Print)

Participant's Signature

Date

Appendix P: Gestural Review Learning Session One (Calgary & Oslo)



Review of Participant # _____ (Displayed in Randomized Order)

Check the box that applies and fill in your number:

☐ Conductor # _____

Brief Description of Statements

Perceived conducting expressivity

The conductor's gestures have an expressive intent and demonstrate how the ensemble should shape the growth and decay of key musical ideas, statements and/or phrases.

Perceived conducting emblematic specificity

The conductor's musical intentions are clear and understandable, as an ensemble member you could clearly perform the conductor's non-verbal intentions during key musical moments involving specific dynamic levels and/or articulations.

Perceived ensemble expressivity

The ensemble's auditory musical gestures have an expressive intent and demonstrate growth and decay of phrases musical ideas, statements and/or phrases.

Perceived ensemble specificity

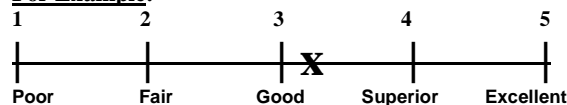
The ensemble's musical intentions are clear and understandable, as an ensemble member you could clearly perform and match the ensemble's intentions during key musical moments involving specific dynamic levels and/or articulations.

Perceived conductor's kinesthetic connection to the ensemble's auditory result

The kinesthetic movement landscape displayed by the conductor matches the auditory musical landscape produced by the ensemble.

Mark an X on the continuum that reflects your response from 1 (Poor) to 5 (Excellent).

For Example:



Point Light Practice Excerpt

The conductor's expressivity in the performance is...

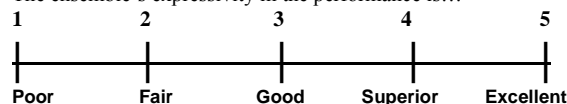


The conductor's emblematic specificity in the performance is...



Audio Practice Excerpt

The ensemble's expressivity in the performance is...



The ensemble's emblematic specificity in the performance is...



Point Light/ Audio Practice Excerpt

The conductor's kinesthetic connection to the ensemble's auditory result is...



Point Light Excerpt #1 (*Washington Grays March*- Grafulla)

The conductor's expressivity in the performance is...



The conductor's emblematic specificity in the performance is...



Audio Excerpt #1 (*Washington Grays March*- Grafulla)

The ensemble's expressivity in the performance is...



The ensemble's emblematic specificity in the performance is...



Point Light/ Audio Excerpt #1 (*Washington Grays March*- Grafulla)

The conductor's kinesthetic connection to the ensemble's auditory result is...



Point Light Excerpt #2 (*Barnum and Bailey's Favourite*- King)

The conductor's expressivity in the performance is...

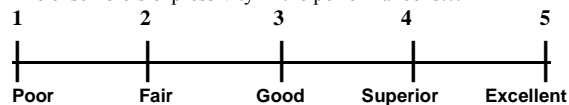


The conductor's emblematic specificity in the performance is...



Audio Excerpt #2 (*Barnum and Bailey's Favourite*- King)

The ensemble's expressivity in the performance is...



The ensemble's emblematic specificity in the performance is...



Point Light/ Audio Excerpt #2 (*Barnum and Bailey's Favourite*- King)

The conductor's kinesthetic connection to the ensemble's auditory result is...



Point Light Excerpt #3 (*March Op. 99*- Prokofiev)

The conductor's expressivity in the performance is...

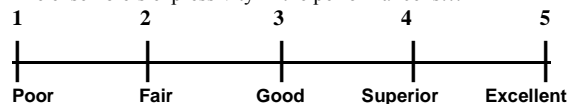


The conductor's emblematic specificity in the performance is...



Audio Excerpt #3 (*March Op. 99*- Prokofiev)

The ensemble's expressivity in the performance is...



The ensemble's emblematic specificity in the performance is...



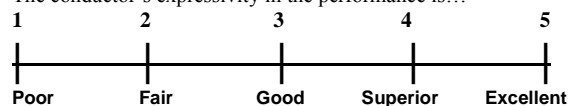
Point Light/ Audio Excerpt #3 (*March Op. 99*- Prokofiev)

The conductor's kinesthetic connection to the ensemble's auditory result is...



Point Light Excerpt #4 (*Florentiner March*- Fučík)

The conductor's expressivity in the performance is...



The conductor's emblematic specificity in the performance is...



Audio Excerpt #4 (*Florentiner March*- Fučík)

The ensemble's expressivity in the performance is...



The ensemble's emblematic specificity in the performance is...



Point Light/ Audio Excerpt #4 (*Florentiner March*- Fučík)

The conductor's kinesthetic connection to the ensemble's auditory result is...



Appendix Q: Learning Session Two Pedagogical Report

Researcher Feedback and Suggested Practices Given to Each Experimental Group Conductor to Improve the Congruency of Communication between the Conductor's Gesture and the Ensembles' Soundscape

Each experimental group conductor was allotted twenty minutes to visually study the scores of the four musical excerpts, then he or she performed four trials of each excerpt with the chamber musicians. The coded communication practice or practices discussed with each conductor have been placed in parenthesis at the end of each instructional moment. An underlined communication practice signifies an instructional moment where the researcher used an analogy to garner a deeper understanding of the practice.

Conductor One

Excerpt One (*Washington Grays March*- Claudio S. Grafulla)

Notate with a left hand gesture or head nod, the emblems contained in the soundscape where an exclamation mark or emphatic musical moment occurs at the end of a phrase, and do not employ a beat pattern.

(Emblem Practice and Head Position/ Facial Expression Practice)

Review the press emblem is connected to moments of increased amplitude and the volume of the movement generates the energy of the emblem, and the difference of the glide emblem where the movement is lighter and can float up to another musical staccato or dab emblem. The energy of the press is kept down on a lower plane where the glide energy is gradually brought to a higher plane.

(Three-Dimensional Salience Practice and Emblem Practice)

Remove the pulse from the left hand that demonstrates the emblems.

(Emblem Practice and Fluid Movement Practice)

Make a game plan for the strength of the emblems based on the will and intent of what the conductor desires to hear before the moment occurs.

(Emblem Practice)

Excerpt Two (*Barnum and Bailey's Favorite*- Karl L. King)

Conduct the rhythm on beat one, stop on beat two, and then give the upbeat to the following beat one, when the majority of the musicians' entrances occur on beat one followed by a silent moment on beat two, to encourage using the notion of salience and emblematic specificity to one's advantage.

(Three-Dimensional Salience Practice and Emblem Practice)

Use salience and change the conducting plane to bring out the beat 2 accent that begins the phrase.

(Three-Dimensional Salience Practice and Emblem Practice)

Differentiate the size, strength and speed of the punch emblem.

(Three-Dimensional Salience Practice and Emblem Practice)

Use a concentrated press or strong and stable left hand that is extended out from the body, instead of a glide emblem to demonstrate a crescendo and encourage the dynamic level to increase with the eyes.

(Emblem Practice and Head Position/ Facial Expression Practice)

Excerpt Three (*March Opus 99*- Sergei Prokofiev)

Establish the conducting plane based on the articulation of the note and the tessitura or range of the instruments creating the sound. Practice demonstrating a different emblem for an accented fortissimo upper woodwind light and sudden dab sound on a higher plane.

(Three-Dimensional Salience Practice and Emblem Practice)

Demonstrate different ways to produce a dab emblem on a light staccato moment by employing a left hand preparatory gesture shaped like an okay sign and open the index finger and thumb directly on the sound moment, or imagine delicately patting a young child on the head.

(Emblem Practice)

Minimize the pattern size in musical moments containing a thinner texture.

(Three-Dimensional Salience Practice)

Experiment with different emblems to keep the musicians' interest and use different emblems when the tempo is different. Set a slightly faster tempo in the conductor's mind prior to bringing in the musicians on their entrance.

(Emblem Practice and Breath/ Entrance Cue Practice)

Encourage the musicians to take the given tempo by providing a stable table with a miniature or microscopic right hand beat pattern above the open palm of the left hand.

(Three-Dimensional Salience Practice)

Excerpt Four (*Florentiner March*- Julius Fučík)

Breathe with the mouth open and bring in the trumpet solo with a trumpet player's breath.

(Head Position/ Facial Expression Practice and Breath/ Entrance Cue Practice)

Demonstrate different approaches to preparatory beats with a quick turn of the wrist and one preparatory up beat or two microscopic pulses above an outstretched stable left hand that falls to the side of the body shortly after.

(Three-Dimensional Salience Practice and Breath/ Entrance Cue Practice)

Encourage the notion of a circular form of communication between the conductor and the musicians.

Perform all four excerpts as a miniature piece emphasizing emblematic moments.

(Emblem Practice)

Conductor Two

Excerpt One (*Washington Grays March*- Claudio S. Grafulla)

Differentiate the glide crescendo emblem with a stable left hand extended out from the body with a regular pattern continuing in the right hand to communicate a more inviting and open gesture.
(Emblem Practice)

Begin the excerpt with the ensemble, then after a couple measures, remove the right hand beat pattern entirely and only conduct emblematic musical moments with the left hand as they occur.
(Three-Dimensional Salience Practice and Emblem Practice)

Excerpt Two (*Barnum and Bailey's Favorite*- Karl L. King)

Give two microscopic preparatory pulses to begin the excerpt, and conduct the following two measures in a macroscopic pattern with only one pulse per measure. Before beginning the excerpt scan the ensemble and establish eye contact to engage the musicians and establish a comfortable joint performance atmosphere.
(Head Position/ Facial Expression Practice and Breath/ Entrance Cue Practice)

Be careful employing sudden movements that accelerate and decelerate when the musical sound isn't surging or regressing. Practice a longer glide emblem to prevent the gestural suggestion of accenting the music in places that do not have written accents.
(Emblem Practice and Fluid Movement Practice)

Listen to the chamber musicians performing the first four bars and think about the quality of the sound. After this, conduct a two pattern that contains a large beat one and a very small beat two by differentiating the size of the beats within the pattern.
(Three-Dimensional Salience Practice and Emblem Practice)

Reduce the size of the beat pattern prior to executing an accented beat two anacrusis note. Before beginning the excerpt, smile at the musicians.
(Three-Dimensional Salience Practice and Head Position/ Facial Expression Practice)

The energy of the accented beat comes from the acceleration leading into the pulse and in its size. Increase the size of the gesture, to encourage the musicians to respond and play stronger in the moment.
(Three-Dimensional Salience Practice and Emblem Practice)

Excerpt Three (*March Opus 99*- Sergei Prokofiev)

Listen and identify the instruments performing and reflect on the range or tessitura of the scoring. Demonstrate a sudden but light dab emblem, by employing a left preparatory gesture that is shaped like an okay sign and open the index finger and thumb directly on the sound moment, or imagine delicately patting a young child on the head.
(Emblem Practice)

Differentiate the emblem size and pattern size by quieting the right hand when the left hand is performing an emphatic musical moment.
(Three-Dimensional Salience Practice and Emblem Practice)

Extend the press emblem further out from the conductor's body.
(Emblem Practice and Three-Dimensional Salience Practice)

Excerpt Four (*Florentiner March*- Julius Fučík)

Conduct two microscopic preparatory beats to cue the musical entrance after a fermata.
(Breath/ Entrance Cue Practice and Three-Dimensional Saliency Practice)

Allow the hand that conducts the emphasis of the emblematic punch moment to change and demonstrate this during four musical moments found in the excerpt.
(Three-Dimensional Saliency Practice and Emblem Practice)

Encourage the conductor to pre-plan how he would like the emblems to sound, and then attach varied gestures that agree with his cognitive vision. Instruct the conductor to show appreciation to the musicians using different facial expressions when he is satisfied with the sound of an emblem.
(Emblem Practice and Head Position/ Facial Expression Practice)

Remind the conductor about a tandem dual communication where the musicians are performing and continuously responding musically based on their visual interpretation of the conductor's gesture, while the conductor is simultaneously refining his gesture based on his interpretation of the auditory soundscape of the musicians' on-going performance. Perform all four excerpts as a miniature piece emphasizing emblematic moments.
(Emblem Practice)

Conductor Seven

Excerpt One (*Washington Grays March*- Claudio S. Grafulla)

Differentiate the pattern size from larger to smaller or smaller to larger.
(Three-Dimensional Saliency Practice)

Widen the pattern size to visually display a crescendo.
(Three-Dimensional Saliency Practice)

Conduct with head and eyes up at the beginning of the excerpt and key phrase entrances to avoid the musicians making an incorrect interpretation that the conductor is dissatisfied with their entries.
(Head Position/ Facial Expression Practice and Breath/ Entrance Cue Practice)

Remove a habitual off-beat hitch from the conducting pattern using a bouncing ball analogy.
(Fluid Movement Practice)

Reign in a pattern size that is too large or too small to change the visual impact of the pattern immediately.
(Three-Dimensional Saliency Practice)

Drop the beat pattern altogether and reflect emblematic sound moments with left hand gestures.
(Emblem Practice)

Minimize left hand mirroring and pulse representation by dropping the hand to one's side, unless showing an emblematic sound moment, to encourage a disengagement and engagement of movement linked to emblematic sonic object representations.
(Emblem Practice)

Excerpt Two (*Barnum and Bailey's Favorite*- Karl L. King)

Breathe with the musicians at the start of the excerpt and on the entrance of solo lines. The breath is the tempo and an important cue.
(Breath/ Entrance Cue Practice)

Breathe with the musicians on the entrance of each new phrase and keep the lips and mouth slightly open rather than closed tightly.
(Breath/ Entrance Cue Practice and Head Position/ Facial Expression Practice)

Differentiate the face by dropping both arms and conducting with only facial expressions, and smile when the auditory landscape is pleasing or meets your vision for the particular musical moment.
(Head Position/ Facial Expression Practice)

Nod the head to show satisfaction and a gestural feedback response to the auditory landscape.
(Head Position/ Facial Expression Practice)

Excerpt Three (*March Opus 99*- Sergei Prokofiev)

Conduct in different planes to reflect sound differences and collective instrument timbres, encourage deeper sounds to be represented on a lower plane and higher pitched solo lines in the high brasses or upper woodwinds to be reflected on a higher plane.
(Three-Dimensional Saliency Practice)

Excerpt Three (*March Opus 99*- Sergei Prokofiev) continued

Encourage a bouncier rebound away from the pulse, to remove a whipping movement that accelerates too quickly by using the analogy of a bouncing ball.

(Fluid Movement Practice)

Turn the torso of the body and look directly at a particular musician or section and choose to engage the musician(s) to encourage correct tempo execution of an off-beat precision.

(Torso Position Practice and Head Position/ Facial Expression Practice)

Remove mirroring and pulse in the left hand by using it as a stable shelf under the tip of the baton connected to the right hand beat pattern.

(Fluid Movement Practice)

Excerpt Four (*Florentiner March*- Julius Fučík)

Differentiate the size and the strength of the punch emblems.

(Three-Dimensional Salience Practice and Emblem Practice)

Practice doing a crescendo glide emblem with a release. Employ a follow-through motion after the gesture's release in the left hand while the right hand continues with the pattern.

(Emblem Practice and Fluid Movement Practice)

Practice showing the crescendo glide moment with an outreached stable left hand while the right hand continues with the beat pattern and then perform the release and follow-through after the release in the right hand. Repeat these brief musical movements a few times with the ensemble to get the feeling of the difference between the two.

(Emblem Practice and Fluid Movement Practice)

Conductor Eight

Excerpt One (*Washington Grays March*- Claudio S. Grafulla)

Diminish the right hand pattern size before and after giving an accented beat two gesture to create movement that corresponds to the sound's salience.

(Three-Dimensional Salience Practice and Emblem Practice)

Drop the baton hand to the side of the body and demonstrate a left hand punch or press emblem in musical moments that might require that type of gestural illustrator. Work at removing the beat or pulse from the left hand.

(Emblem Practice and Fluid Movement Practice)

Promote a slower and smoother movement of the left hand crescendo surge glide emblem that travels a shorter vertical distance by staying within the parameters established by the researcher's hands, to ensure the crescendo doesn't go too high vertically.

(Emblem Practice and Fluid Movement Practice)

Excerpt Two (*Barnum and Bailey's Favorite*- Karl L. King)

Extend the left hand more away from the body for a crescendo glide gesture rather than holding it too close to the body.

(Emblem Practice)

Make a little dab emblem in the left hand by using the analogy of checking a box with a check mark to correct a gesture that grabs at the air.

(Emblem Practice and Fluid Movement Practice)

Keep participant conductor's head up by removing the musical score and encouraging direct communication with the musicians performing.

(Head Position/ Facial Expression Practice)

Demonstrate the pulse point on beat one and stop momentarily on beat two, do this twice followed by a regular two pattern to demonstrate the salient moments followed by a crescendo ending with a staccato dab. The stop technique is a clear way to exhibit brief musical moments with large moments of silence in between and when the music continues in a consecutive melodic manner it makes kinematic and auditory sense return to a regular pattern.

(Emblem Practice and Three-Dimensional Salience Practice)

Utilize a fluid and comfortable and open hand position in a shape similar to the one you would use to shake another's hand, to remove tension discovered in a scrunched left hand. Use the video game analogy of avoiding the Pac Man (video game character) hand which looks weak and sad.

(Fluid Movement Practice)

Excerpt Three (*March Opus 99*- Sergei Prokofiev)

Entirely relax the left hand and allow the researcher to control it to produce a press emblem that moves down and away from the conductor's body using the analogy of stroking or petting a cat while the right hand pattern continues in its usual fashion.

(Emblem Practice)

Realize an expressive face combined with the expressive press emblem is very powerful, and a conductor can choose whether to reflect the expression in the emblem, face or both.

(Emblem Practice and Head Position/ Facial Expression Practice)

Excerpt Three (*March Opus 99- Sergei Prokofiev*) continued

Utilize the left hand pointer finger dab to show the precise placement of grace note staccato figures that fall on a down beat preceded by musical silence.

(Emblem Practice)

Breathe with the solo trumpet entrance with student musicians and realize that even amateur and professional musicians like to connect with the visual security of the breath with the conductor.

(Breath/ Entrance Cue Practice)

Excerpt Four (*Florentiner March- Julius Fučík*)

Demonstrate a follow-through after the execution of a punch emblem, using the sports analogy of swinging a baseball bat that continues to follow-through even after connecting with the ball.

(Emblem Practice)

Use a firm stable outstretched left hand as a visual palette located underneath the right hand pattern's movement while showing the crescendo glide to the final melodic staccato note or dab emblem in the baton hand.

(Three-Dimensional Salience Practice and Emblem Practice)

Ensure the head is looking in the same direction as the breath cue so the musician entering knows whether it is for him.

(Head Position/Facial Expression Practice and Breath/ Entrance Cue Practice)

Utilize caution representing the final staccato note of the excerpt by using a light dab emblem to avoid jabbing or stabbing the music in a heavy accelerated fashion that is too intense or powerful using a less energetic laser beam analogy.

(Emblem Practice and Fluid Movement Practice)

Conductor Nine

Excerpt One (*Washington Grays March*- Claudio S. Grafulla)

Drop the right hand pattern and display the punch emblem using the left hand as the conductor feels the music dictates.

(Emblem Practice)

Eliminate four preparatory pulses to bring in the ensemble, instead give two small preparatory pulses (click click boom) and keep the head and eyes up for at least four measures before looking down at the score.

(Head Position/ Facial Expression Practice and Breath/ Entrance Cue Practice)

Place the left hand underneath and cradle the baton for the duration of the two preparatory pulses and breathe like you would to play your primary instrument on the last preparatory pulse. Repeat bringing in the ensemble in this manner a few times to make a kinesthetic connection to these concepts.

(Breath/ Entrance Cue Practice)

Excerpt Two (*Barnum and Bailey's Favorite*- Karl L. King)

Drop the right hand pattern and reflect the crescendo glide in the left hand in tandem with a facial expression that confirms this musical intention.

(Emblem Practice and Head Position/Facial Expression Practice)

Round the left arm to be more inviting by bringing the elbow out from the side of the body to remove tension on the crescendo glide gestures displayed.

(Emblem Practice)

Promote a slower and smoother movement of the left hand crescendo surge glide emblem that travels a shorter vertical distance by staying within the parameters established by the researcher's hands, to ensure the crescendo doesn't go too high vertically.

(Emblem Practice and Fluid Movement Practice)

Use both hands to show the smooth and slow crescendo glide emblem to remove the pulse from in the accelerated upward movement by encouraging a slight curve to the arms and feeling of weight during the upward motion and weightlessness on downward motion.

(Emblem Practice and Fluid Movement Practice)

Excerpt Three (*March Opus 99*- Sergei Prokofiev)

Encourage conductor to look directly at the trumpet soloist and cue the musical entrance with the conductor's breath.

(Head Position/Facial Expression Practice and Breath/ Entrance Cue Practice)

Practice press emblem by mirroring the hands and pushing down and out from the body on beat two.

(Emblem Practice)

Remove an accented forceful dab on a light staccato moment by employing a left hand preparatory gesture shaped like an okay sign and open the index finger and thumb directly on the sound moment.

(Emblem Practice)

Excerpt Four (*Florentiner March*- Julius Fučík)

After beginning the excerpt, do not look down immediately to confirm the musicians' entrance was correct as the joint communication established is halted too quickly and can be misconstrued by the musicians as dissatisfaction. (Head Position/Facial Expression Practice and Breath/ Entrance Cue Practice)

Conduct the excerpt without using the visual score as a reference point and encourage a drastic increase in facial engagement and turning of the torso when communicating entrance cues to the musicians. The researcher reminds the conductor of upcoming entrance cues and the musician's specific location and instrument if needed. (Head Position/Facial Expression Practice, Breath/ Entrance Cue Practice and Torso Position Practice)

Researcher demonstrates a musical release with a floating or gliding follow-through motion and performs this release in tandem with the conductor before and during the musical moments in the excerpt. (Emblem Practice)

Conductor Ten

Excerpt One (*Washington Grays March*- Claudio S. Grafulla)

Look at and connect with the musicians that are playing the musical line you are mentally focused on and transfer this gaze to a new group of musicians when you shift this focus to a new musical line to prevent the eyes and head from wandering from side to side. This also discourages the creation of additional tempo movements.
(Head Position/ Facial Expression Practice and Breath/ Entrance Cue Practice)

Reduce the pattern size when the music changes or when the conductor is satisfied with the tempo the musicians are currently executing, then expand or open up the size of the pattern in moments when the musicians have an indicated crescendo. Promote the musicians' attention shift during the pattern size increases by decreasing or reducing the pattern size prior to the change.
(Three-Dimensional Saliency Practice)

Encourage the conductor to display the dab emblem using the right hand pointer finger to show a lighter sound moment by employing a motion similar to touching a button to turn it on, and to display a press emblem by opening the hand slightly and stroking the button for a slightly heavier sound.
(Emblem Practice)

Demonstrate the glide emblem in tandem with a musical crescendo occurring over one measure, with a slower movement that travels less of a distance vertically to avoid encouraging a scooped note or drastic surge in the sound.
(Emblem Practice and Fluid Movement Practice)

Excerpt Two (*Barnum and Bailey's Favorite*- Karl L. King)

Caution the conductor concerning the physical presence of the pulse in the left hand unless mirroring the pattern. Drop the left hand and fully relax it to the conductor's side and conduct the pattern in the right hand only.
(Three-Dimensional Saliency Practice)

Conduct the rhythm on beat one, stop on beat two, and then give the upbeat to the following beat one, when the majority of the musicians' entrances occur on beat one with a silent moment on beat two to encourage using the notion of saliency to one's advantage. Emphasize further that this in addition to the demonstration of the complete pattern when the musicians have a crescendo moment demonstrates a specific clarity of direction to the musical line.
(Three-Dimensional Saliency Practice)

Keep an even weight distributed between one's feet and widen one's stance, change the head position or shift the distributed weight effortlessly to prevent leaning the body more toward the musicians on the right, than to the musicians on the left.
(Torso Position Practice and Head Position/ Facial Expression Practice)

Excerpt Three (*March Opus 99*- Sergei Prokofiev)

Place the left hand underneath and cradle the baton for the duration of the two preparatory pulses that begin the excerpt.
(Three-Dimensional Saliency Practice and Breath/ Entrance Cue Practice)

Connect with the musicians by changing your glare or facial expression when you hear a musical note error in the solo line, with a furrowed eyebrow or a nod in response to the error, this demonstrates to the player an acknowledgement and dissatisfaction that the moment occurred.
(Head Position/ Facial Expression Practice)

Excerpt Three (*March Opus 99- Sergei Prokofiev*) continued

Practice the execution of the dab emblem directed to the upper woodwind instruments or the low brass instruments. Differentiate the higher plane framed by your face to connect with the higher pitched instruments and the lower plane parallel with your waistline to connect with the more serious deeper and heavier sounding instruments and to encourage the notion that more of the body is involved in the lower plane gestures.

(Three-Dimensional Salience Practice and Emblem Practice)

Caution the conductor to be careful when laughing or acknowledging his own conducting errors, as the musicians can misunderstand and perceive he is laughing in response to their performance.

(Head Position/ Facial Expression Practice)

Remind the conductor to make eye contact with the soloist before giving the cue. Discuss staying visually connected with whatever musical moment or line requires his attention the most and learn to trust that other entrances or lines will be executed properly.

(Head Position/ Facial Expression Practice)

Excerpt Four (*Florentiner March- Julius Fučík*)

Keep the body stance fairly square to show stability in posture as it is connected to both the head and torso.

(Torso Position Practice and Head Position/ Facial Expression Practice)

Demonstrate the breath on the preparatory pulse as well as the solo trumpet and flute entrances and bring your gaze to the musicians that are playing to engage with them.

(Breath/ Entrance Cue Practice and Head Position/ Facial Expression Practice)

Encourage the conductor that the sound he desires to hear or the strength of the note, should dictate the strength of the emblem given, if the sound is prominent the strength of the emblem should be more prominently displayed using the example of Frederick Fennell's baseball swing gesture, to prevent a graceful delicate gestural reflection of a strong and deep moment scored for the trombone and bass drum.

(Emblem Practice)

Appendix R: Learning Session Two Participant Entrance and Exit Questionnaire



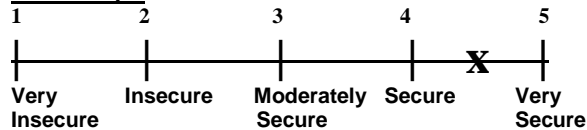
Conductor # _____

Mark an X in the box that reflects your knowledge of conducting emblems/ non-verbal musical illustrators.

☐ No Knowledge ☐ Minimal Knowledge ☐ Some Knowledge ☐ Vast Knowledge ☐ Thorough Knowledge

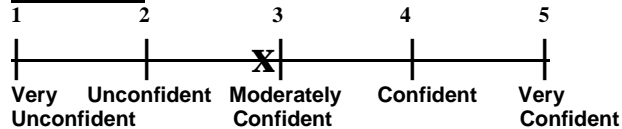
Mark an X on the continuum that reflects your comfort level in conducting the study's four march excerpts with the chamber ensemble from 1 (Very Insecure) to 5 (Very Secure).

For Example:

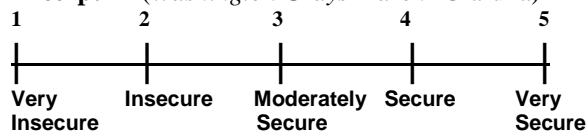


Mark an X on the continuum that reflects your confidence level in conducting the study's four march excerpts with the chamber ensemble from 1 (Very Unconfident) to 5 (Very Confident).

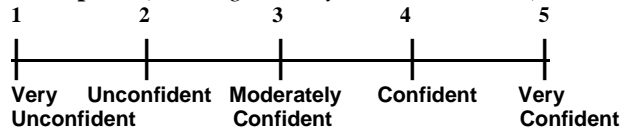
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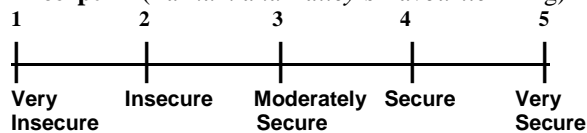
Excerpt #1 (*Washington Grays March- Grafulla*)



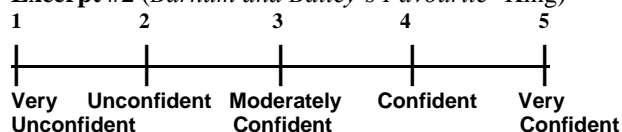
Excerpt #1 (*Washington Grays March- Grafulla*)



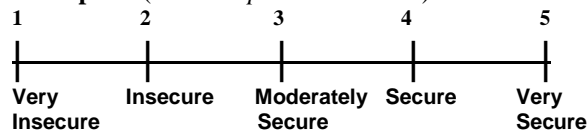
Excerpt #2 (*Barnum and Bailey's Favourite- King*)



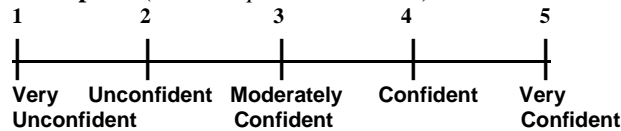
Excerpt #2 (*Barnum and Bailey's Favourite- King*)



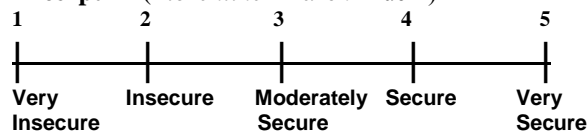
Excerpt #3 (*March Op. 99- Prokofiev*)



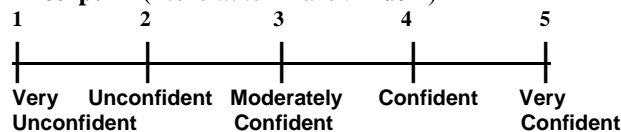
Excerpt #3 (*March Op. 99- Prokofiev*)



Excerpt #4 (*Florentiner March- Fučík*)



Excerpt #4 (*Florentiner March- Fučík*)



Place a ✓ in the box that reflects your ability to kinesthetically perform the following emblems.

Press (Strong and Sustained)

☐ Poorly ☐ Minimally ☐ Adequately ☐ Effectively ☐ Flawlessly

Glide (Light and Sustained)

☐ Poorly ☐ Minimally ☐ Adequately ☐ Effectively ☐ Flawlessly

Dab (Light and Sudden)

☐ Poorly ☐ Minimally ☐ Adequately ☐ Effectively ☐ Flawlessly

Punch (Strong and Sudden)

☐ Poorly ☐ Minimally ☐ Adequately ☐ Effectively ☐ Flawlessly

Place a ✓ in the box that reflects your response to the following statements.

Coaching exercises designed specifically to enhance conducting expressivity and encourage experimentation with emblems/ non-verbal musical illustrators would benefit a beginning conductor.

☐ Strongly Disagree ☐ Disagree ☐ Somewhat Agree ☐ Agree ☐ Strongly Agree

A physically expressive and emblematic conductor greatly effects an ensemble's musical performance expression.

☐ Strongly Disagree ☐ Disagree ☐ Somewhat Agree ☐ Agree ☐ Strongly Agree

Kinesthetic experimentation with the above mentioned emblems greatly increases accuracy testing scores when matching a displayed gesture to its corresponding sound.

☐ Strongly Disagree ☐ Disagree ☐ Somewhat Agree ☐ Agree ☐ Strongly Agree

Kinesthetic musical performance of the above mentioned emblems greatly increases a chamber musician's accuracy testing scores when matching a displayed gesture to its corresponding sound.

☐ Strongly Disagree ☐ Disagree ☐ Somewhat Agree ☐ Agree ☐ Strongly Agree

Appendix S: Learning Session Two Conductor Self-Evaluation Responses

Each experimental group conductor was allotted ten minutes to self-evaluate his or her kinesthetic ability to perform each emblem and relay his or her comfort/ confidence level to conduct each excerpt. An entrance and exit questionnaire was used to gather the conductor's thoughts before and after Learning Session Two.

Conductor One

<u>Questions</u>	<u>Before Learning Session</u>	<u>After Learning Session</u>
Participant's Knowledge of Conducting Emblems and Non-Verbal Illustrators	Some Knowledge	Some Knowledge
Excerpt #1 Comfort/ Confidence Level	3.000	2.188
Excerpt #2 Comfort/ Confidence Level	2.375	3.750
Excerpt #3 Comfort/ Confidence Level	4.000	4.500
Excerpt #4 Comfort/ Confidence Level	4.250	4.063
Ability to Kinesthetically Perform Press	Adequately	Effectively
Ability to Kinesthetically Perform Glide	Minimally	Adequately
Ability to Kinesthetically Perform Dab	Minimally	Adequately
Ability to Kinesthetically Perform Punch	Effectively	Effectively
Coaching Designed to Enhance Expressivity & Encourage Experimentation with Emblems Benefits a Beginning Conductor	Strongly Agree	Strongly Agree
A Physically Expressive & Emblematic Conductor Greatly Effects an Ensemble's Performance Expression	Agree	Strongly Agree
Kinesthetic Experimentation with the Four Emblems Greatly Increases Accuracy Test Scores When Matching a Displayed Gesture to its Corresponding Sound	Strongly Agree	Strongly Agree
Kinesthetic Musical Performance of the Four Emblems Greatly Increases a Chamber Musician's Accuracy Test Scores When Matching a displayed Gesture to its Corresponding Sound	Strongly Agree	Strongly Agree

Conductor Two

<u>Questions</u>	<u>Before Learning Session</u>	<u>After Learning Session</u>
Participant's Knowledge of Conducting Emblems and Non-Verbal Illustrators	Vast Knowledge	Vast Knowledge
Excerpt #1 Comfort/ Confidence Level	3.125	4.188
Excerpt #2 Comfort/ Confidence Level	4.500	4.625
Excerpt #3 Comfort/ Confidence Level	2.183	4.563
Excerpt #4 Comfort/ Confidence Level	3.625	4.313
Ability to Kinesthetically Perform Press	Adequately	Adequately
Ability to Kinesthetically Perform Glide	Adequately	Adequately
Ability to Kinesthetically Perform Dab	Effectively	Effectively
Ability to Kinesthetically Perform Punch	Effectively	Effectively
Coaching Designed to Enhance Expressivity & Encourage Experimentation with Emblems Benefits a Beginning Conductor	Strongly Agree	Strongly Agree
A Physically Expressive & Emblematic Conductor Greatly Effects an Ensemble's Performance Expression	Strongly Agree	Strongly Agree
Kinesthetic Experimentation with the Four Emblems Greatly Increases Accuracy Test Scores When Matching a Displayed Gesture to its Corresponding Sound	Agree	Agree
Kinesthetic Musical Performance of the Four Emblems Greatly Increases a Chamber Musician's Accuracy Test Scores When Matching a displayed Gesture to its Corresponding Sound	Agree	Agree

Conductor Seven

<u>Questions</u>	<u>Before Learning Session</u>	<u>After Learning Session</u>
Participant's Knowledge of Conducting Emblems and Non-Verbal Illustrators	Minimal Knowledge	Some Knowledge
Excerpt #1 Comfort/ Confidence Level	3.438	3.125
Excerpt #2 Comfort/ Confidence Level	3.625	3.375
Excerpt #3 Comfort/ Confidence Level	4.000	4.125
Excerpt #4 Comfort/ Confidence Level	4.250	4.500
Ability to Kinesthetically Perform Press	Adequately	Adequately
Ability to Kinesthetically Perform Glide	Effectively	Effectively
Ability to Kinesthetically Perform Dab	Adequately	Adequately
Ability to Kinesthetically Perform Punch	Effectively	Effectively
Coaching Designed to Enhance Expressivity & Encourage Experimentation with Emblems Benefits a Beginning Conductor	Strongly Agree	Strongly Agree
A Physically Expressive & Emblematic Conductor Greatly Effects an Ensemble's Performance Expression	Agree	Agree
Kinesthetic Experimentation with the Four Emblems Greatly Increases Accuracy Test Scores When Matching a Displayed Gesture to its Corresponding Sound	Strongly Agree	Strongly Agree
Kinesthetic Musical Performance of the Four Emblems Greatly Increases a Chamber Musician's Accuracy Test Scores When Matching a displayed Gesture to its Corresponding Sound	Agree	Strongly Agree

Conductor Eight

<u>Questions</u>	<u>Before Learning Session</u>	<u>After Learning Session</u>
Participant's Knowledge of Conducting Emblems and Non-Verbal Illustrators	Vast Knowledge	Vast Knowledge
Excerpt #1 Comfort/ Confidence Level	3.313	3.875
Excerpt #2 Comfort/ Confidence Level	3.750	4.000
Excerpt #3 Comfort/ Confidence Level	3.000	3.500
Excerpt #4 Comfort/ Confidence Level	4.125	4.375
Ability to Kinesthetically Perform Press	Adequately	Effectively
Ability to Kinesthetically Perform Glide	Minimally	Effectively
Ability to Kinesthetically Perform Dab	Effectively	Effectively
Ability to Kinesthetically Perform Punch	Effectively	Effectively
Coaching Designed to Enhance Expressivity & Encourage Experimentation with Emblems Benefits a Beginning Conductor	Strongly Agree	Strongly Agree
A Physically Expressive & Emblematic Conductor Greatly Effects an Ensemble's Performance Expression	Strongly Agree	Strongly Agree
Kinesthetic Experimentation with the Four Emblems Greatly Increases Accuracy Test Scores When Matching a Displayed Gesture to its Corresponding Sound	Strongly Agree	Strongly Agree
Kinesthetic Musical Performance of the Four Emblems Greatly Increases a Chamber Musician's Accuracy Test Scores When Matching a displayed Gesture to its Corresponding Sound	Strongly Agree	Strongly Agree

Conductor Nine

<u>Questions</u>	<u>Before Learning Session</u>	<u>After Learning Session</u>
Participant's Knowledge of Conducting Emblems and Non-Verbal Illustrators	Vast Knowledge	Vast Knowledge
Excerpt #1 Comfort/ Confidence Level	2.375	3.750
Excerpt #2 Comfort/ Confidence Level	2.500	4.000
Excerpt #3 Comfort/ Confidence Level	2.313	3.500
Excerpt #4 Comfort/ Confidence Level	2.375	2.875
Ability to Kinesthetically Perform Press	Minimally	Minimally
Ability to Kinesthetically Perform Glide	Minimally	Minimally
Ability to Kinesthetically Perform Dab	Poorly	Minimally
Ability to Kinesthetically Perform Punch	Poorly	Minimally
Coaching Designed to Enhance Expressivity & Encourage Experimentation with Emblems Benefits a Beginning Conductor	Agree	Agree
A Physically Expressive & Emblematic Conductor Greatly Effects an Ensemble's Performance Expression	Agree	Agree
Kinesthetic Experimentation with the Four Emblems Greatly Increases Accuracy Test Scores When Matching a Displayed Gesture to its Corresponding Sound	Strongly Agree	Strongly Agree
Kinesthetic Musical Performance of the Four Emblems Greatly Increases a Chamber Musician's Accuracy Test Scores When Matching a displayed Gesture to its Corresponding Sound	Strongly Agree	Strongly Agree

Conductor Ten

<u>Questions</u>	<u>Before Learning Session</u>	<u>After Learning Session</u>
Participant's Knowledge of Conducting Emblems and Non-Verbal Illustrators	Vast Knowledge	Vast Knowledge
Excerpt #1 Comfort/ Confidence Level	3.125	4.375
Excerpt #2 Comfort/ Confidence Level	3.750	4.375
Excerpt #3 Comfort/ Confidence Level	4.000	4.750
Excerpt #4 Comfort/ Confidence Level	4.000	4.750
Ability to Kinesthetically Perform Press	Minimally	Effectively
Ability to Kinesthetically Perform Glide	Adequately	Effectively
Ability to Kinesthetically Perform Dab	Adequately	Effectively
Ability to Kinesthetically Perform Punch	Minimally	Effectively
Coaching Designed to Enhance Expressivity & Encourage Experimentation with Emblems Benefits a Beginning Conductor	Strongly Agree	Strongly Agree
A Physically Expressive & Emblematic Conductor Greatly Effects an Ensemble's Performance Expression	Strongly Agree	Strongly Agree
Kinesthetic Experimentation with the Four Emblems Greatly Increases Accuracy Test Scores When Matching a Displayed Gesture to its Corresponding Sound	Strongly Agree	Strongly Agree
Kinesthetic Musical Performance of the Four Emblems Greatly Increases a Chamber Musician's Accuracy Test Scores When Matching a displayed Gesture to its Corresponding Sound	Strongly Agree	Strongly Agree

Appendix T: Learning Session Two Collective Ensemble Musician Written Feedback

Conductor One

Excerpt One (*Washington Grays March*- Claudio S. Grafulla)

- M1: The press gesture was very little, but then he improved the gesture. Some problems with the tempo.
- M2: With instructions there is less movements and this is a big help. It's easier to follow a conductor with less movements. And then every movement becomes more important.
- M3: A little insecure in his comments, but his presence is still confident I think.
- M5: I felt the times when he did not conduct, but only moved every few bars to signify the high points of the piece were ineffective because he lost the tempo when he wasn't conducting and was frequently late.
- M8: He's expressive, confident and secure, still he could perhaps be even more clear on the parts he wishes the band to really follow him. Also, the ending could be more clear.

Excerpt Two (*Barnum and Bailey's Favorite* - Karl L. King)

- M1: The crescendo (press) is not visible. He should move more the arm outside his body.
- M5: The gesture training for the punch was incredibly effective. The conductor vastly improved the dynamism he was able to coax out of the ensemble.
- M6: I feel encouraged to play more joyfully when you use your facial expressions more. I'd like you to be aware of that, and maybe use it more effectively.
- M7: He took the punch instructions very well, fast learner.
- M8: He seems very confident on his movements, but still somehow seems insecure. His punch emblem is very good, but he could perhaps work on the press emblem. Better contact with the band in this excerpt.

Excerpt Three (*March Opus 99*- Sergei Prokofiev)

- M1: He should keep the hands higher.
- M3: He is growing, dares to try out new things and follows your tips and advices.
- M5: I thought the tempo never got up to where it was suppose to be so some of the gestures lacked energy.
- M6: Your glide was a lot better here, than in the first excerpt, because it felt more thought through. Your movement was more convincing because of your increasing security.
- M7: Great how he turned around and did those dabs instead of what he did before.
- M8: More comfortable and "cool" in this excerpt and more confident/secure. His movements/ gestures have a good "flow". He has a lot of expression in his eyes, maybe he should work on transforming them over to his physical expression.

Excerpt Four (*Florentiner March*- Julius Fučík)

- M1: In bar sixteen the gesture for the crescendo died. The second time he did that, I liked the direction he gave to the last eighth note.
- M3: Good to listen to the researcher, he is better in the emblems, more secure.
- M5: The beginning after a little coaching, was very effective, however the glide in the second to last bar never really happened.
- M7: You're good at breathing, but it could be even more clear, not only in the beginning, but during the piece where people come in. Breathe in the character! We need a lot of air to play fortissimo.
- M8: He is more relaxed, clear and also confident in this part. It seems like he wants to develop and learn more.
- M9: He was clear at the beginning, and the breathing really helps. Maybe with unexperienced musicians the first gesture could be a bit clearer.

Conductor Two

Excerpt One (*Washington Grays March*- Claudio S. Grafulla)

- M1: The gestures is very clear, but small- when she wants to give a punch, she jumps with all her body. She never looks at us, but above us or at the cameras and I think that this makes the energy disappear.
- M2: The gestures were a bit stiff to begin with, but it improved a lot.
- M3: A little insecure. Her eyes go around in the room. Good at taking advices. She looks a bit stiff. Her face is not quite in (eyes).
- M5: She was quite effective when using her non-baton hand. The dynamics she got out of us were great.
- M6: Good intensity, but I don't feel that you communicate enough with me. I feel like I lose interest because I don't know if you can tell I am here.
- M7: Want some more contact from you.
- M8: Her physical expression is good and clear, but the lack of expression in her face is bringing the whole down. She has small gestures, but they express a lot. But maybe she could make the small ones smaller and the big ones bigger?
- M9: Maybe she could prepare the emblems more and be more physical.

Excerpt Two (*Barnum and Bailey's Favorite* - Karl L. King)

- M1: She conducted the piece in the same way all the time, but she improved the forte and piano, crescendo and diminuendos. At the end it was better and we played with "a meaning".
- M2: Awareness on the movements and the force makes a change. It's easier to follow!
- M3: Is very to the point! That's good. Her eyes and face became better after the "face expression practice", but still a bit stiff.
- M5: The fast tempo she chose and her small movements made her seem confident the first time she conducted. It seemed like she knew everything she wanted. After coaching the first four bars, it was much easier to follow her pattern and play exactly together. The last time (with a lesser accent in the first ending and a greater one in the second ending) was most effective.
- M6: Better communication! Nice confidence/ security developing during the session on this excerpt.
- M7: Great progress in bars three and four with the punch-beats. Great compact accent in the end!
- M8: She seems more confident/relaxed now. And her movements/gestures are more clear in this excerpt. There is also more contact with the band. In the last "walk-through" she is more alive, and you notice a development.

Excerpt Three (*March Opus 99*- Sergei Prokofiev)

- M1: The gesture is very elegant, we play in a "light" way, but very clear and precise.
- M3: Facial expressions are better. Light but firm, and she is smiling! Works for the colour of the music.
- M5: Her entrance was too small and relaxed for fortissimo.
- M6: Good movements overall. I feel that the ending is a bit uncertain, I don't know what you want there.
- M7: Better to see where the sixteenth notes before rehearsal one are going when you're filling out thanks.
- M8: Her expression is clear and you understand what she wants the band to do. It's a good variation in the movements; still I think she could be even more clear and expressive.
- M9: Maybe she could be a bit heavier on the gestures.

Excerpt Four (Florentiner March- Julius Fučík)

- M1: Good! Probably she could be a little bit more “violent” in some punches.
- M3: She knows what she wants, takes the instructions. More confident!
- M5: Sometimes having the two hands mirror each other is a little too much when only one instrument is playing (I saw this only the first time). Her exit run-through of this excerpt was by far the best.
- M6: Lovely glide/press on the last bar. The movement was more holistic.
- M7: Great smile. And you’re getting so much better to look at us great.
- M8: All in all it’s very good and entertaining to watch. And I feel that she’s more relaxed in this excerpt than she was in number one.
- M9: She has sometimes very small gestures, when she could do them bigger. By the way, her shoulder movement is not jumping as much as last time.

Conductor Seven

Excerpt One (*Washington Grays March*- Claudio S. Grafulla)

- M10: The pattern was too big at first, but it improved when it got smaller.
- M11: It must be hard to distinguish the left hand's job from the right. Keep practicing, it'll get there.
- M15: Using more of a bounce got rid of the scoop on the and of your beats.
- M18: Outlining our main musical ideas was effective. That's basically all we need is some guidance in those times.

Excerpt Two (*Barnum and Bailey's Favorite* - Karl L. King)

- M11: He seems a bit guarded when he conducts us, I think it's because he's concentrating so hard.
- M12: You appeared less tense when you relaxed your mouth.
- M14: Yes Wendy's right, we like gaining feedback and prefer to know if the conductor is satisfied with our sound.
- M17: Nice smile! You need to make a conscious effort to do this more, not just in the lab, but with the players in rehearsal.
- M19: Remember to breathe with us at the beginning like you did in the second take.
- M20: Good conducting on this excerpt.

Excerpt Three (*March Opus 99*- Sergei Prokofiev)

- M10: Your movements are slightly jerky. You speed up and slow down at odd times, it's hard to explain. The tempo should stay the same with a constant speed of motion.
- M12: Far less repetitive without the mirroring.
- M15: Bouncing the beat made a difference in the clarity of your gestures.
- M17: Placing your hand under the pattern draws my focus to the tip of the baton. Nice job!
- M18: This march excerpt is suppose to be happy and your demeanor should reflect this notion.
- M20: Turning the trunk of his body reduced the stiffness in his posture.

Excerpt Four (*Florentiner March*- Julius Fučík)

- M12: Like the last conductor, his punches were better with a follow-through motion.
- M13: Glides look weak if your movement stops at the top.
- M14: Good direction on the bass drum solo.
- M17: Better confidence on this march than on the first ones.
- M18: Every punch should not look the same, otherwise I feel there's no need to watch because I know what's coming.

Conductor Eight

Excerpt One (*Washington Grays March*- Claudio S. Grafulla)

- M12: Inviting eyes. He seems relaxed and mellow.
- M14: Nice facial expressions. You are a good conductor.
- M15: Stopping your beat pattern did help you focus on the movement.
- M17: Changing the pattern size before our pick-up note worked well. Wow!
- M18: Fast learner who is implementing the suggestions quickly.
- M19: Presses improved, but still need practice.

Excerpt Two (*Barnum and Bailey's Favorite* - Karl L. King)

- M12: Glides could look more natural. Try to make smoother movements as you progress..
- M16: I liked it when you showed our silences. I knew precisely when to come in.
- M17: Great confidence! Light dab motions.
- M19: Removing the score forced him to think about the music without putting his head down.
- M20: Your left hand looks less tense. You'll see it when you watch the DVD.
- M21: He's trying to show the dynamic differences.

Excerpt Three (*March Opus 99*- Sergei Prokofiev)

- M11: The flute and clarinet played more in tempo in measure five and seven when he cued them.
- M13: His personality is coming through in his face and movements.
- M14: Sound expressions in this number, especially on the presses.
- M16: It was much better the second time when you breathed with me. Remember even the pros like it when a conductor does this.
- M17: The tempo captured the spirit and ambiance of the Prokofiev. Too slow and it lags. Too fast and it's muddy.

Excerpt Four (*Florentiner March*- Julius Fučík)

- M10: More aware on the piccolo cue in the last takes.
- M12: His punches were better with a follow-through motion.
- M16: Well done, the beat is clear. This is a difficult technique that I don't think is straight forward.
- M18: Punches have more weight attached in the fortissimo spots. Not sure what you want at the end.
- M21: Conductor Eight made good progress. He'll make an awesome teacher.

Conductor Nine

Excerpt One (*Washington Grays March*- Claudio S. Grafulla)

- M11: It helps to be confident at the beginning. When you brought in the band with a stronger gesture, I trusted you more.
- M13: You are looking down a lot and it makes you seem uncertain.
- M14: It helped when she fixed the execution of her punches.
- M15: Her conducting got better in each trial.
- M18: Showing two prep beats worked better than four and our group played more together.
- M19: Keep working on independence of each hand and bring them together.

Excerpt Two (*Barnum and Bailey's Favorite* - Karl L. King)

- M12: The crescendos were much better when they travelled a shorter distance.
- M13: The glide emblem is difficult to master in one session, keep working on it with a mirror at home.
- M15: Making eye contact with the musicians is really important, especially in moments where our dynamics change.
- M19: You can be more firm with us with our dynamics.
- M20: Your body is still a bit stiff.

Excerpt Three (*March Opus 99*- Sergei Prokofiev)

- M11: The press emblem was more effective the second time we played.
- M13: Remember to breathe with us on our entrances. It helps us to come in on time.
- M16: I felt more secure on my solo entrance when you breathed with me on our second and third run-through.
- M17: I believe a faster tempo would help us play this excerpt.
- M18: The staccato cue is much less jerky than on the first trials.
- M21: It helps when the researcher reminds her of the cues, the communication is more sound.

Excerpt Four (*Florentiner March*- Julius Fučík)

- M10: Turning her body toward me before my solo made a solid impression on me.
- M11: Over all much preferred it when you took the score away. Eye contact and confidence.
- M11: Felt more confident which was really nice!
- M14: It felt that you were more present with us when you had no score to look down at.
- M15: Great strides were made with her eye contact. She should continue to work on her facial expressions.
- M17: Her last trial was the best because she kept moving after she cut us off.
- M20: You implemented a lot of changes which made it much easier to understand what you wanted from us.

Conductor Ten

Excerpt One (*Washington Grays March*- Claudio S. Grafulla)

- M10: Changing your pattern got my attention.
- M12: It was much nicer when she altered the size of her conducting to match the dynamics.
- M13: You can improve your facial expressions; you often have a pleasant, but blank look that is hard to read.
- M15: I appreciated it when you made direct eye contact with me.
- M16: Her crescendo gestures are much smoother now than the first few times, but I don't think this is something that can be perfected in one practice session.
- M17: You selected a good tempo for this.
- M19: Less pattern, more experimentation.

Excerpt Two (*Barnum and Bailey's Favorite* - Karl L. King)

- M11: I liked it when you opened up your beat pattern on our crescendos.
- M14: Many times conductors use both hands to conduct, but I think we played more together when you conducted us with just your right hand.
- M15: Nice cues, much more direct.
- M18: Turning her body on the cues made an immediate difference and looked good.
- M19: Be more over-the-top!
- M21: Her body looks more stable.

Excerpt Three (*March Opus 99*- Sergei Prokofiev)

- M10: Changing the location of her dab gestures was appropriate for me as a flutist.
- M12: Your practice bringing us in seemed to really unify our sound.
- M13: Putting your hand under the baton directed my focus, but the pick-up beats should be even smaller.
- M16: There is a sense of calm and confidence in your conducting. Good work!
- M19: Same as number one, less pattern and more experimentation.
- M20: She seems more relaxed.
- M21: I wish I had signed up as a conductor. Watching each person gain valuable advice has been sweet.

Excerpt Four (*Florentiner March*- Julius Fučík)

- M11: You're a graceful conductor, but your movement should be heavier on the pesante and accented parts.
- M12: My big hit worked better the second time because you breathed with me.
- M17: Breathing with the soloist is natural and it ensures we are on the same page.
- M19: Great you are trying some new things!
- M20: More engaged with the ensemble.
- M21: Don't be afraid of making strong or even aggressive gestures when necessary.

Appendix U: Quality of Emblem Displayed Feedback Form (Musician/ Conductor Experimental Group)



Check the box that applies and fill in your information:

☐ Ensemble Musician / Instrument _____

☐ Conductor # _____

Review of Conductor # _____

Brief Description of Terms

Emblem

An expressive and specific non-verbal conducting gesture displayed to illustrate and communicate the precise meaning of a key musical moment. Both weight and time factors can be manipulated to produce different emblems.

Strong

The weight factor that allows an individual to move his or her body weight against the natural laws of gravity in a strong or heavy manner.

Light

The weight factor that allows an individual to move his or her body weight against the natural laws of gravity in a light manner.

Sustained

A relatively elongated or lingering amount of time that passes during the execution of a specific movement.

Sudden

A relatively brief or fleeting amount of time that passes during the execution of a specific movement.

Emblem Legend

Press (Strong and Sustained)

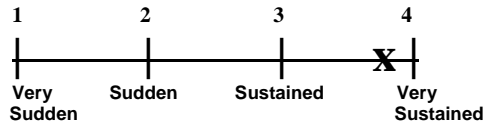
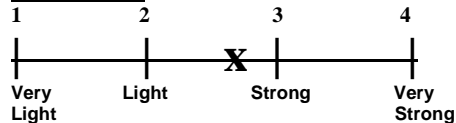
Punch (Strong and Sudden)

Glide (Light and Sustained)

Dab (Light and Sudden)

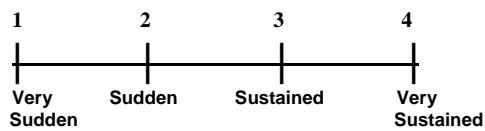
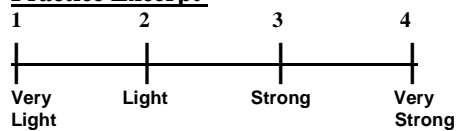
Mark an X on the continuum to rank both the Weight and Time of the general gestural action displayed in the indicated measures, then use the Emblem Legend to fill in the Emblem Displayed.

For Example:



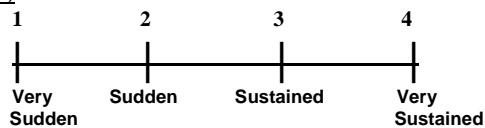
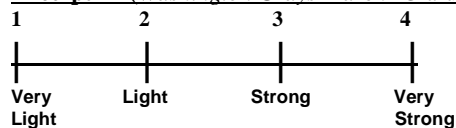
Emblem Displayed Press

Practice Excerpt



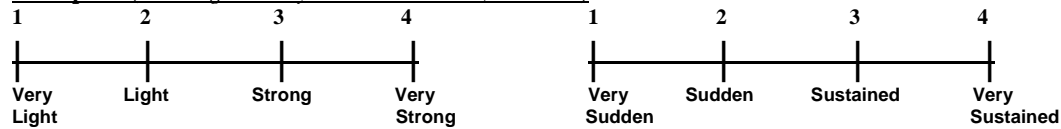
Emblem Displayed _____

Excerpt #1 (Washington Grays March- Grafulla, m. 4 & 9)



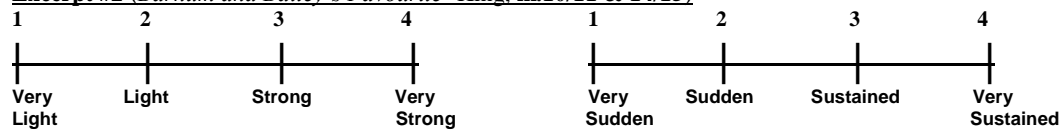
Emblem Displayed _____

Excerpt #1 (*Washington Grays March*- Grafulla, **m. 17/18**)



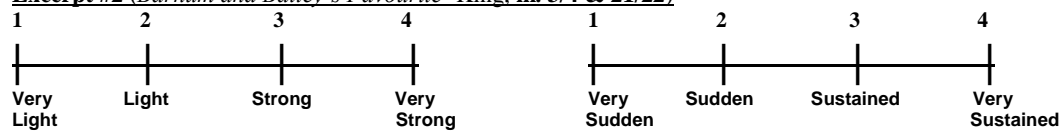
Emblem Displayed _____

Excerpt #2 (*Barnum and Bailey's Favourite*- King, **m.10/11 & 14/15**)



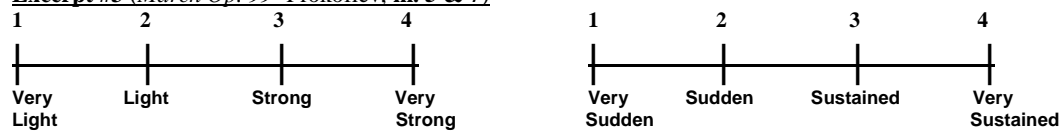
Emblem Displayed _____

Excerpt #2 (*Barnum and Bailey's Favourite*- King, **m. 3/4 & 21/22**)



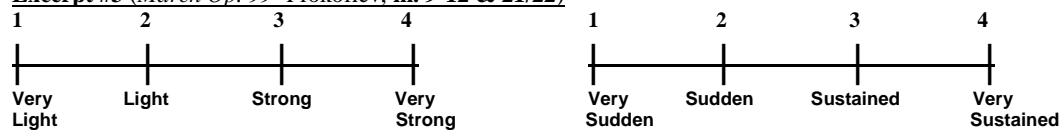
Emblem Displayed _____

Excerpt #3 (*March Op. 99*- Prokofiev, **m. 5 & 7**)



Emblem Displayed _____

Excerpt #3 (*March Op. 99*- Prokofiev, **m. 9-12 & 21/22**)



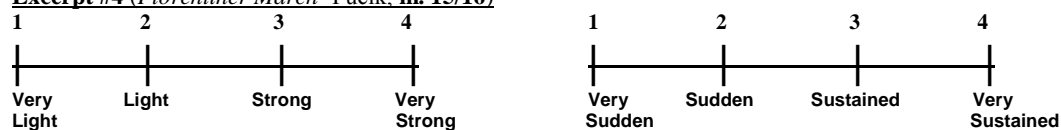
Emblem Displayed _____

Excerpt #4 (*Florentiner March*- Fučík, **m. 8**)



Emblem Displayed _____

Excerpt #4 (*Florentiner March*- Fučík, **m. 15/16**)



Emblem Displayed _____

Appendix V: Musician Emblem Identification

Excerpt One (Washington Grays March- Claudio S. Grafulla) (Punch)

m. 4 & 9

<u>Musician</u>	<u>Emblem Displayed C1</u>	<u>Emblem Displayed C2</u>
1	Punch	Punch
2	Punch	Punch
3	Dab	Punch
4	Press	Punch
5	Press	Punch
6	Punch	Punch
7	Punch	Punch
8	Punch	Punch
9	Punch	Glide

m. 4 & 9

<u>Musician</u>	<u>Emblem Displayed C7</u>	<u>Emblem Displayed C8</u>	<u>Emblem Displayed C9</u>	<u>Emblem Displayed C10</u>
10	Punch	Punch	Glide	Dab
11	Punch	Punch	Punch	Dab
12	Punch	Punch	Punch	Glide
13	Press	Punch	Punch	Dab
14	Punch	Punch	Punch	No Emblem
15	Punch	Dab	Press	Dab
16	Punch	Punch	Punch	Punch
17	Punch	Punch	Punch	Press
18	Dab	Punch	Punch	Dab
19	Punch	Punch	Press/Punch	Press
20	Press	Punch	Punch	Press
21	Punch	Punch	Punch	Dab

Excerpt One (Washington Grays March- Claudio S. Grafulla) (Glide or Press)

m. 17/18

<u>Musician</u>	<u>Emblem Displayed C1</u>	<u>Emblem Displayed C2</u>
1	Press/Glide	Press
2	Glide	Glide
3	No Emblem	Press
4	Press	Punch
5	No Emblem	Punch
6	No Emblem	Press
7	Glide	No Emblem
8	No Emblem	Press
9	Glide	No Emblem

m. 17/18

<u>Musician</u>	<u>Emblem Displayed C7</u>	<u>Emblem Displayed C8</u>	<u>Emblem Displayed C9</u>	<u>Emblem Displayed C10</u>
10	Glide	Glide	Glide	Press
11	Press	Press	Punch	Glide
12	Press	Press	Punch	Glide
13	Punch	Press	Press	Glide
14	Glide	Press	Punch	No Emblem
15	Press	Glide	Punch	Glide
16	Press	Glide	Press	Press
17	Press	Glide	Press	Glide
18	Press	Glide	Punch	Glide
19	Press	Glide	Press	Press
20	Press	Punch	Punch	Press
21	Punch	Glide	Press	Press

Excerpt Two (Barnum and Bailey's Favourite- Karl L. King) (Glide)

m. 10/11 & 14/15

<u>Musician</u>	<u>Emblem Displayed C1</u>	<u>Emblem Displayed C2</u>
1	Press	None
2	Glide	Glide
3	Glide	Glide/Dab
4	Glide	Glide/Dab
5	Glide	Glide
6	Glide	Glide
7	Glide	Glide/Dab
8	Press	Glide/Dab
9	Press	Glide

m. 10/11 & 14/15

<u>Musician</u>	<u>Emblem Displayed C7</u>	<u>Emblem Displayed C8</u>	<u>Emblem Displayed C9</u>	<u>Emblem Displayed C10</u>
10	Glide	Press	Glide	Glide
11	Press	Glide	Glide	Press
12	Glide	Press	Glide	Dab
13	Glide	Glide	Glide	Glide
14	Punch	Dab	Glide	Glide
15	Glide/Dab	Glide	Dab	Glide
16	Press	Press	Glide	Press
17	Glide	Glide	Glide	Glide
18	Glide	Glide	Glide	Glide
19	Glide	Glide	Glide	Glide
20	Press	Glide	Glide	Press
21	Glide	Press	Press	Press

Excerpt Two (Barnum and Bailey's Favourite- Karl L. King) (Glide/Punch or Glide/Dab)

m. 3/4 & 21/22

<u>Musician</u>	<u>Emblem Displayed C1</u>	<u>Emblem Displayed C2</u>
1	Dab	Punch/Dab
2	Punch/Dab	Punch
3	Punch	Dab
4	Punch	Punch
5	Punch	Punch
6	Press/Dab	Dab/Punch
7	Glide	Punch
8	Punch	Dab
9	Punch	Dab

m. 3/4 & 21/22

<u>Musician</u>	<u>Emblem Displayed C7</u>	<u>Emblem Displayed C8</u>	<u>Emblem Displayed C9</u>	<u>Emblem Displayed C10</u>
10	Punch	Punch	Dab	Dab
11	Punch	Punch	Dab	Punch
12	Punch	Punch	Dab	Dab
13	Punch	Dab	Punch	Punch
14	Dab	Press	Dab	Dab
15	Dab	Punch	Glide	Dab
16	Punch	Dab	Press	Punch
17	Dab	Press	Punch	Punch
18	Dab	Dab	Dab	Dab
19	Dab	Dab	Press	Punch
20	Press	Press	Dab	Press
21	Punch	Punch	Punch	Dab

Excerpt Three (March Opus 99- Sergei Prokofiev) (Dab)

m. 5 & 7

<u>Musician</u>	<u>Emblem Displayed C1</u>	<u>Emblem Displayed C2</u>
1	Dab	No Emblem
2	Dab	Dab
3	Punch	Punch
4	Press	Dab
5	Punch	Punch
6	Press	Punch
7	Punch	Punch
8	Press	Dab
9	Punch	Punch

m. 5 & 7

<u>Musician</u>	<u>Emblem Displayed C7</u>	<u>Emblem Displayed C8</u>	<u>Emblem Displayed C9</u>	<u>Emblem Displayed C10</u>
10	Punch	Glide	Glide	Glide
11	Dab	Dab	Dab	Dab
12	Punch	Press	Dab	Punch
13	Dab	Punch	Punch	Glide
14	Dab	Dab	Dab	Dab
15	Dab	Punch	Dab	Dab
16	Punch	Dab	Punch	Punch
17	Dab	Dab	Glide	Dab
18	Dab	Punch	Dab	Dab
19	Punch	Dab	Dab	Dab
20	Glide	Dab	Dab	Dab
21	Dab	Dab	Dab	Dab

Excerpt Three (March Opus 99- Sergei Prokofiev) (Dab)

m. 9-12 & 21/22

<u>Musician</u>	<u>Emblem Displayed C1</u>	<u>Emblem Displayed C2</u>
1	Dab/Punch	No Emblem
2	No Emblem	Dab
3	Dab/Punch	Glide/Dab
4	Punch	Dab
5	Dab	Dab
6	Press/Glide	No Emblem
7	Dab	Dab
8	Punch	Press
9	No Emblem	No Emblem

m. 9-12 & 21/22

<u>Musician</u>	<u>Emblem Displayed C7</u>	<u>Emblem Displayed C8</u>	<u>Emblem Displayed C9</u>	<u>Emblem Displayed C10</u>
10	Glide	Glide	Press	Glide
11	Press	Press	Press	Press
12	Glide	Glide	Glide	Glide
13	Press	Press	Dab	Punch
14	Press	Glide	Press	Glide
15	Glide	Glide	Press	Press
16	Press	Press	Press	Glide
17	Press	Press	Press	Press
18	Press	Press	Press	Glide
19	Press	Press	Press	Press
20	Press	Glide	Glide	Dab
21	Press	Dab	Press	Press

Excerpt Four (Florentiner March- Julius Fučík) (Punch)

m. 8

<u>Musician</u>	<u>Emblem Displayed C1</u>	<u>Emblem Displayed C2</u>
1	Punch	Punch
2	Punch	Punch
3	Punch	Punch
4	Punch	Punch
5	Punch	Dab
6	Punch	Punch
7	Punch	Dab
8	Punch	Press
9	Press	Punch

m. 8

<u>Musician</u>	<u>Emblem Displayed C7</u>	<u>Emblem Displayed C8</u>	<u>Emblem Displayed C9</u>	<u>Emblem Displayed C10</u>
10	Punch	Punch	Glide	Dab
11	Punch	Punch	Punch	Dab
12	Punch	Punch	Punch	Punch
13	Punch	Punch	Press	Punch
14	Punch	Punch	Punch	Dab
15	Punch	Punch	Dab	Dab
16	Punch	Punch	Punch	Punch
17	Punch	Punch	Punch	Punch
18	Punch	Punch	Punch	Dab
19	Punch	Punch	Punch	Punch
20	Press	Punch	Dab	Press
21	Punch	Punch	Punch	Dab

Excerpt Four (Florentiner March- Julius Fučík) (Glide or Dab)

m. 15/16

<u>Musician</u>	<u>Emblem Displayed C1</u>	<u>Emblem Displayed C2</u>
1	Glide	Glide/Press
2	Glide	Glide/Punch
3	Glide/Dab	Glide/Dab
4	Punch	Glide/Dab
5	Press	Press
6	Glide	Press
7	Glide	Glide/Punch
8	Press	Glide/Press
9	Glide	Press

m. 15/16

<u>Musician</u>	<u>Emblem Displayed C7</u>	<u>Emblem Displayed C8</u>	<u>Emblem Displayed C9</u>	<u>Emblem Displayed C10</u>
10	Glide	Glide	Press	Glide
11	Press	Dab	Glide	Glide
12	Press	Dab	Press	Press
13	Press	Press	Glide	Glide
14	Press	Press	Glide	Glide
15	Dab	Dab	Glide	Glide
16	Glide	Dab	Glide	Press
17	Press	Press	Press	Glide
18	Glide	Glide	Glide	Glide
19	Press	Dab	Press	Press
20	Glide	Press	Glide	Press
21	Press	Press	Press	Press

Appendix W: Conductor and Musician Written Responses of Central Research Questions

Do you believe there is a connection between an ensemble's expressivity and a conductor's non-verbal illustrators or emblematic gestures exhibited in his conducting technique, and if so, what factors play a role in the success of this form of non-verbal multi-modal communication?

- C1: Yes, I believe there is a connection. Factors are: Clarity and awareness of the movements and the intention.
- C2: There is absolutely a connection between the expressivity and the conductor's gestures, we experience that all of the time when conducting or playing in an ensemble. I believe the interpretation and reaction of the musicians is very much intuitive, (not so much a learned ability), precise, -unmisunderstandable; and also, there's always the issue of "not too much, not too little." An important factor not to forget, is the will of the conductor. The gesture alone will not give the same result if it is made without musical energy and will behind. This may be visible for example in the conductor's look, or just be sensed from the conductor's "musical being."
- C3: Yes. I believe factors can be for example, accuracy in texture, conductor's wide register of movements.
- C4: I believe that there is a real connection between the gesture and sound, but that what determines success may vary from orchestra to orchestra. Probably, a key factor is that the gestures are simple, yet expressive, and intuitively understood.
- C5: Yes.
- C6: Yes. Posture, energy knowing the score well! Personality and practice non-verbal communication.
- C7: Absolutely. The conductor's role in front of an ensemble is to express in a way that should be interpreted by the ensemble in a musical manner.
- C8: Use of gesture to convey style, conducting pattern, particular gestures, eye contact, head movement, facial expression.
- C9: Yes. If the ensemble pays attention to the conductor this is more successful.
- C10: Definitely, there is sound change depending on the conductor's gesture and technique.
- C11: Yes, the level of energy shown by the gestures of the conductor will add purpose and motion to the rehearsal and punctuation of the piece.
- C12: Most definitely, conductors that I have had that simply kept the beat were not able to get the expressive element out of our ensemble. Accuracy and expressivity plays a role.
- M1: Of course there is a connection, but I think that the best thing a conductor can do is to be always in a deep eye-contact with the musician. I mean, as a musician I don't mind if the wrist is too much at the left or the right, but I have to feel comfortable and play with security. Then, of course, if you conduct in a "flat" way you don't communicate with the energy that your musicians require, and you can find the energy of the gesture improving the conducting technique.
- M2: Yes! Factors: The conductor seems secure, comfortable and well prepared + facial expression, clear and precise gestures.

- M3: It is absolutely a connection between our expressivity and the conductor. He needs to have a movement who is not too little and not too much.
- M4: Yes I do believe there is a definite connection between the ensemble's expressivity and the conductor's non-verbal gestural illustrators. The conductor's face, eyes, posture, acceleration and deceleration of movements all have the capability to influence sound.
- M5: I do think a conductor's non-verbal illustrators and emblematic gestures have an influence on an ensemble's expressivity, but not in a necessarily direct way. Many times musicians feel that conductors and their gestures are didactic and condescending. In this case, the more a conductor moves, the less musicians respond. However a conductor who responds to the musicians' musical initiative has a more fruitful relationship with the ensemble and so his movements can coax a lot of nuance and expressivity out of the ensemble.
- M6: Yes. An ensemble's expressivity will grow with the conductor's gestures. I think the clearer his or her emblematic gestures are, the less analysis the musicians have to do, they will understand the intention and concentrate on translating it to music.
- M7: Yes! The ensemble must be attentive. Clear gestures, not too many. Energy in the gestures! And the conductor must practise his gestures. (smiley face)
- M8: No response was recorded by the participant.
- M10: Yes. The visibility of the gestures would probably be the biggest factor for me.
- M11: Yes. Factors are the commitment of the conductor to one moment. How precise the motions are.
- M12: Yes, the clear movement of rhythm, loudness, when to come in or off.
- M13: Yes, need to be clear with gestures and make them drastically different than other movements.
- M14: Yes, I think there is a direct connection. Factors such as breathing together, making eye contact, using facial gestures help to establish connection.
- M15: Yes, commitment to the gesture by the conductor plays a huge role in its ability to be translated across.
- M16: Yes the underlying pulse and the decoration over the melody are two different things and the conductor must be consistent in what he focuses on.
- M17: Yes, a conductor who is involved in the music and is self-aware definitely encourages expressivity.
- M18: Under an information transmission paradigm of communication the factors determining the success of this would be the understanding of the gestures by the ensemble and the conductor's ability to make the gestures comprehensible.
- M19: Yes; any way for the musicians to get non-verbal cues is beneficial to the music.
- M20: No response was recorded by the participant.
- M21: No response was recorded by the participant.

In your view what type of occurrences break down the relationship between gesture and sound?

- C1: When the gesture doesn't match the sound, when there is lack of communication, and when all gestures become too similar.
- C2: Seen from a conducting technique's point of view, there are many mistakes that work against the (musical and) gestural intentions of the conductor. Personally, I experience myself thinking too much while conducting, trying to be aware all the time of what I am doing and what I should be doing, trying to concentrate on many levels at the same time (phrasing, emphasizing on different parts of the score which I'd like to point out, listening to musicians and adjusting beating, own conducting and body position etc.) This "over-awareness" and continuous critical analysis of myself sometimes stop my intentions to come through, I think, since my focus can get too detailed, I make things more complicated than they are and create problems for myself. I'm afraid that my self-focused struggle even might make it more complicated for the musicians in the ensemble to play. A common mistake is physical tensions of the conductor, which can ruin or decrease the effect of a gesture.
- C3: Uncertainty with the conductor of what's wanted can be misinterpreted by the player.
- C4: When the conductor is unspecific about what his gestures actually mean, thus making the orchestra insecure. When there is too much information and the orchestra becomes unresponsive.
- C5: Gestures that do not correspond to the music and the other way around perhaps?
- C6: Bad score study. Stiffness. Too much talking.
- C7: Timing is a large factor that could break down this relationship.
- C8: Inaccurate conducting pattern, the pattern size, lack of eye contact.
- C9: It is possible for distractions to happen, or if the musicians need to focus on technique more.
- C10: Wrong gesture or the players not following the conductor's gesture will break down the relationship of gesture and sound.
- C11: Unrelated or over-exaggerated dynamics on both parts.
- C12: If the gesture does not match the sound in a stylistic way, as discussed above, or is not in time.
- M1: Sometimes conductors show with gesture what they want but their face is completely different, or they keep same expression all the time. I cannot play a forte or a piano if the conductor looks at me in the same way. I would not understand if he really feels the forte or piano.
- M2: Perhaps because the musicians or the conductor are sight reading too many gestures (over conducting)/ when the conductor's got bad confidence/ seems uncomfortable.
- M3: If the conductors show one thing with their body and hands and something else with their face.

- M4: Gesture and sound breaks down when the communication between the conductor and the ensemble musicians breaks down. This can occur if the ensemble and conductor have different interpretations of the music, or if the conductor's interpretation is not visible in his gestural representations of the music. The musicians may be swayed more by the current sounds the ensemble is making and may not be paying particular attention to the conductor's movements. Eye contact between the conductor and musician is important to this communication, especially in moments where the music changes tempo or dynamics.
- M5: Pedantic conductors prevent musicians from wanting to make music. There are also a lot of false conductors. Musicians see through this immediately. False conductors pretend like they feel the music 100% of the time and pretend like they know what the orchestra wants. This assuming quality and desire to show how much they know makes musicians not want to respond.
- M6: I feel like less is more. If there are too many gestures, too much movement, it breaks down the relationship between gesture and sound.
- M7: If the conductor falls behind or doesn't know the score, and if they do too much/ too little, and if the ensemble doesn't care to follow! And if the face shows something else than the gestures!
- M8: No response was recorded by the participant.
- M9: Lack of confidence in the conductor or too many movements, or just doing different things than the instruments.
- M10: Impaired visibility (musician can't see conductor).
- M11: Any pauses or extra movements. Ex. A head shaking seems angry to me. Body posture!
- M12: With wrong rhythm.
- M13: Limited eye contact. Nervous stance.
- M14: Feeling pick-ups, downbeats, the length and size of gesture relating to a larger sound.
- M15: Lack of knowledge of the piece and not looking ahead to create coherence.
- M16: The pulse and the dynamics are the main factors.
- M17: Unclear accentuations, general lack of clarity.
- M18: Gesture and sound can only be related when both the sender and receiver of the gesture/sound understand the context and meaning of both.
- M19: A combination of isolation of body parts and/ or inclusion that distracts.
- M20: No response was recorded by the participant.
- M21: No response was recorded by the participant.

Would emblematic coaching and performance exercises increase one's accuracy to match a commonly exhibited gesture with its corresponding sound?

- C1: Yes.
- C2: I think you will improve your ability to match sounds and gestures as you develop as a conductor. That doesn't only mean your own conducting technique, but also reflections on conducting and on playing/responding, and observing different conductors, experience what they do, what works... The type of emblematic coaching we had in this study is one part of (basic level) conductor education that will increase the matches of the accuracy test. But if you study performances of professionals and rehearsals of professionals, that will speed up the development, because then you see good gestures that get good results. (That way you won't only be trying to find those good gestures yourself). I think the main factor of your ability to match sounds to gestures is your general level as a conductor/ ensemble player. And one of those things that can take you further, is coaching, with musicians responding to the gestures.
- C3: Probably, I think it is also a matter of developing a conductor's fantasy and widen his/ her "register" having many things/ gestures integrated helps a conductor to be impulsive and use fantasy suited to the orchestra and make the best free flow and music.
- C4: Probably, but for such an operation to work in real life, there would have to have been a lasting cooperation, as both parties need to learn to adjust to each other. I do not believe conducting gestures are universal in performance, but it is possible to develop more intuitively understood gestures.
- C5: It probably depends on who the coach is, but I believe it will help.
- C6: Yes.
- C7: For sure. It would help the conductor gain the correct timing and interpretation.
- C8: Yes absolutely.
- C9: Probably.
- C10: Yes I think it is important to have emblematic coaching and performance exercises to increase one's accuracy.
- C11: Yes.
- C12: Yes, this was a challenge in conducting classes before –how do you perform a gesture that is smooth versus harsh, for example.
- M1: Yes because sometimes the conductor is not aware if the gesture is too much/ not sufficient. The same that happens for example with musicians they think to play forte until somebody shows them that they can play more.
- M2: Yes, I think it makes a difference and in most cases increases one's accuracy to match a gesture. However things may happen during the run-through that effects the match that couldn't have been avoided even though there has been coaching (like if the conductor is having a bad day/ gets nervous etc.).
- M3: Yes I think coaching will help too. When they practise and get coached they have it (the gestures and the music) in their body and mind. I found it easiest to listen to the clips first, and then see the gesture, because then I can try to sing the music in my head while I study the gesture. The other way was hard...

- M4: Yes perhaps with the more complicated emblems, but probably not in the more direct and easy to understand emblems. If the movement is sudden like a punch or dab, it may not improve because it was already comprehended to be so beforehand, however if the movement is sustained like the gliding crescendo with a dab staccato note on the end, viewing those type of emblems and matching it to their respective sounds would help.
- M5: I think coaching would increase my ability to match gesture and sound. I think if you coached a dolphin to do it, it could succeed after enough practice as well. Matching emblem and corresponding sound seems to be something that depends more on being trained for that specific skill rather than on being intelligent or a good musician.
- M6: Definitely. It would make the conductor more aware of his/ her gestures, and that would make it easier to improve and be clearer in his/ her gestures.
- M7: Yes!
- M8: No response was recorded by the participant.
- M9: Perhaps. Sound first is the best.
- M10: I think it would be helpful.
- M11: I think so yes.
- M12: Yes, it would.
- M13: Yes.
- M14: Yes, I think so. Especially when the same gestures and sounds are given, it becomes easier to associate them.
- M15: Yes as there are many new gestures being created as new conductors appear.
- M16: Yes, it was hard getting use to the glitches in the video.
- M17: Yes, I think so.
- M18: This is certainly plausible and more than likely; however it seems unnecessary to me. The time that would have to be spent doing this coaching could be better used rehearsing.
- M19: I think so.
- M20: No response was recorded by the participant.
- M21: No response was recorded by the participant.

Appendix X: List of Interview Transcription Symbols

=	An <u>equal sign</u> found at the end of one utterance and beginning of the next, indicates no ‘gap’ between the two conversational utterances from one speaker to the next.
:: or :::	<u>Colons</u> indicate elongation of the prior sound, the length of the colon row or number of colons present reveals the length of the sounds elongation.
e: or :e	<u>Combinations of stress and prolongation markers</u> reveal intonation or pitch contours. If the underscore occurs on a letter before a colon, the pitch of the sound falls slightly; i.e. ye <u>a</u> :h, and if the underscore occurs on a colon after a letter, the pitch of the sound rises slightly; i.e. mm <u>:</u> .
_____	<u>Underscoring a word, syllable or letter</u> indicates an emphasis and or amplitude projection stronger than a typical speech pattern.
(0.0)	<u>Numbers encased in parenthesis</u> indicate the elapse time of silence by tenths of seconds. For example, (1.3) denotes one and three-tenths seconds of elapsed silence between words. If the silence occurs between utterances, it should be noted either at the end of the first utterance or beginning of the next.
(.)	A <u>dot encased in parenthesis</u> signifies a brief ‘gap’ between words or utterances. The elapsed silence is no greater than approximately one-tenth of a second.
()	<u>Empty parenthesis</u> reveals the transcriber’s inability to discern what was said. The length of the parenthesized space indicates the length of the uttered discourse.
*	An <u>asterisk</u> indicates a ‘whisper voice’.
[]	<u>Brackets</u> contain the transcriber’s description(s) in addition to the transcription(s).
_____	<u>Underscored space with no text</u> above it, indicates text that contains anonymity and cannot be transcribed. The length of the underscoring shows the length of the uttered discourse.
Yes. No.	<u>Textual overlap</u> from one utterance to the next is shown by placing the interrupted utterance directly below the first utterance in the location where the interruption occurs or point of overlap.
No. Yes.	An <u>utterance aligned directly below a word</u> in the same column, indicates a simultaneous onset of words.

Appendix Y: Post-Learning Session Three Wrap-Up Conductor Interview Transcripts

Conductor One

- 1 R: [Starts the recording devices] Okay:: (.) we are ru:nnng, perfect. So today, we are recording and um: (.) anything, that you (.) u:m: (.) say would be referred to as conductor number one, and uh (.) so feel comfortable to say whatever you feel and think.=
- 2 C1: =Yeah.
- 3 R: Yeah, and u::m: (.) it will, I will be taking a lot about what people tell me about what they feel and think about these things and incorporating it into my dissertation for my PhD. So, the purpose of today is for me to get your thou::ghts on sort of the process, the motion capture da::ys, and the learning sessions, and then also the accuracy tests.
- 4 C1: Yeah.
- 5 R: So those kind of three things, and then I'll ask you some sort of general questions about conducting and your thoughts in general about those.
- 6 C1: Okay.
- 7 R: Hopefully you'll feel that at the end of this interview we talked about a lot, but that it was um:: (.) a reflective process that really helped you to think about everything and put it all together in your mind, and uh: (.) hopefully you'll feel that it was valid to have this time together talking about everything. [Laughter]
- 8 C1: That's a good plan.
- 9 R: Okay (.) so (.) you can state in Norwegian, but please state your name in full.
- 10 C1: In full?=
11 R: =Yeah.
- 12 C1: My name is _____.
- 13 R: Great, and how old are you?
- 14 C1: I am twenty-four.
- 15 R: Okay, and you are currently enrolled as an undergraduate student at the Norwegian Academy of Music?
- 16 C1: Um:::...
- 17 R: Or he::re?
- 18 C1: not quite, I have a Bachelor from here
- 19 R: Oh (.) okay.
- 20 C1: in Musicology.=
- 21 R: =Yes.
- 22 C1: And I have it's something between a Bachelor and Master
- 23 R: Oh.
- 24 C1: it's called "ved utdanning".
- 25 R: Oka::y.
- 26 C1: So I have done two years of conducting
- 27 R: Mm:::...
- 28 C1: which was part time, about 50 percent.
- 29 R: Mm: hmm, mm: hmm::.=
- 30 C1: =So in total one year of conducting.
- 31 R: Oh (.) okay (.) okay and these conducting learnings have come, where have you gone for those?
- 32 C1: At the Norwegian Academy of Music.=
- 33 R: =Oh (.) okay great and uh: (.) in those sessions is it with Per Sigmund and the um:: (.) rehearsal orchestra? Is that part of it?=
34 C1: =Yes::..
- 35 R: Or a class (.) a class?
- 36 C1: That's the second year=
37 R: =In the second year that happens?
- 38 C1: with Per Sigmund, and the first year it's a bigger group of thirty people and they are playing for each other and conducting.
- 39 R: O::h oka:y, so in year one you do that
- 40 C1: Mm: hmm:.
- 41 R: and then in year two it's a smaller group of you and you do the...
- 42 C1: With the orchestra.=
- 43 R: =And cha:mber too or?
- 44 C1: Yeah.
- 45 R: Yeah, okay great (.) and in that one do you also play in it if there is an opportunity or...?
- 46 C1: Yes we play for each other in the first year.
- 47 R: Okay, in the first year (.) okay.
- 48 C1: Yeah.

49 R: Great [laughter] and so would you say that's the extent of the conductor training that you've had to this point, have you um: (.) had any private lessons with anyone or?

50 C1: No (.) no private lessons, but I do have a choir.

51 R: Oh (.) oka::y what is the name of your choir?

52 C1: "Gurrstupina."

53 R: Okay. [C1 and R Laughter]

54 C1: It's the students at the, no not high school, "høgskole".

55 R: Okay yeah (.) so what age group is that about?

56 C1: The students?

57 R: Yeah.

58 C1: Yeah (.) between 18 and 20 something.=

59 R: =Yeah-yeah okay, and you meet um: (.) once a week with them for?

60 C1: Yeah, once a week for two hours, but I only have them for a total of seven rehearsals.=

61 R: =And then a concert?

62 C1: And a concert, yes.

63 R: Okay (.) and it runs all year or just part of the year?

64 C1: Yeah, it runs all year, but I started in the spring.=

65 R: =Yeah.

66 C1: So then we had four rehearsals and a concert.

67 R: Oka::y.

68 C1: Then we started now in September.

69 R: Wonderful that is so exciting, that's great. (2.0) In my field of musicology, we talk about this notion and we call it sound tracing, and it's sort where (.) in your performance and with your intention, you draw or shape the soundscape. Do you think that or feel that your gestures (.) emblematic movements (.) do that at all?

70 C1: Yes, I do (0.5) a lot.

71 R: Yeah. [Laughter]

72 C1: [Laughter] I really believe in shaping the music with my movements and the sound, the quality, and the communication to the musicians to make them more secure about their playing (.) to help them with my movements.

73 R: Yeah sort of reinforce what you want?

74 C1: Yeah, reinforcing the music instead of (.) more than the pulse, or going out of being a metronome, and emphasizing the shape of the music with my shapes of movements.=

75 R: =Yeah, no this is great, this is good. I have a question that I've been thinking a lot about, with those shapes and those movements, why are some gestures good and appropriate and they work, for a number of sounds, I guess like what I mean is, like if you do a certain gesture, why does that work with lots of different sounds, (4.0) or maybe?

76 C1: I do understand the question I am just thinking about, the first word popping up is it's kind of neutral, because you are giving information with your movements, but you are trying not to give too much information and letting the musician um: (.) work it out [laughter] somehow.

77 R: Mm: hmm, mm: hmm.=

78 C1: =How it's actually going to sound or let's say the music within the notes, so with your movements you are trying to give the musician the space he needs, or the "område", that's a Norwegian word=

79 R: =That's okay.

80 C1: uh (.) uh (.) u::h which he is going to play within.

81 R: Mm: hmm:.

82 C1: And with some movements you are setting this (.) making this box, let's say it

83 R: Mmm:: yeah-yeah (.) no (.) yeah.

84 C1: u::m, and there might be different sounds that suits within this space.

85 R: Mm: hmm, mm::: (.) I like this.=

86 C1: =It's an idea.

87 R: Yeah, thank you it's a great idea. What are some properties or elements of sound that change frequently and require an action to help encourage the players? So in sound, if you think about sound (.) what are some things in sound that change (2.0) that make you want to do an action? I can give an example.

88 C1: Okay (.) yeah. You mean for example intonation?=
 89 R: =Sure.
 90 C1: Or attack?
 91 R: Yes.=
 92 C1: =Yes.
 93 R: Both of those.=
 94 C1: =Both of those.

95 R: Yeah.=

96 C1: =Yeah, which you want to:...

97 R: Well I think, um: (.) I want to see what you think um: (.) changes, because it's something I think about a lot, is ya know (.) what things drive us to sh:ow something, to want to show it? So attack would be a really big one, like I want to show that attack with a cue, or ya know like you said, "intonation" which is a trickier one, but...=

98 C1: =it is, it is.

99 R: Mm: hmm.

100 C1: And it's also more difficult to be thinking through it in advance

101 R: Mm: hmm.

102 C1: but you can look at okay it's the third of the chord or so, okay maybe it's going to be a bit low or high, so you can have a caution before, but it's, e:: more (.) it's easier to prepare the movements according to the attacks of the sound that you want. And also (.) the sustain of the notes (.) so when you (.) after attack you also know how you want the note to develop within the certain (0.5) instruments.

103 R: Mm: hmm, yeah (.) exactly. A sustain is a really big one for me, because the sound keeps going even after we give a cut off, the sound keeps going ya know. Um: (.) do you think some of our emblem gestures (.) and by emblems I mean these major sound moments where you throw a big motion, do you think that um: (.) they are stro:ngly linked to particular sound moments? Like is your sou::nd and motion hardwired together? That let's say (.) you have a bass drum sound or u:m: (.) ba da da, ba da da, ba da da, boom [sings tune] and you have another one of those in another march

104 C1: Mm: mm:.

105 R: a very similar thing. Would you likely do the same movement (.) there? Are you kind of hardwired that bass drum for me is like this, and it's here [demonstrates a gesture located around the waist] or do you think you mix it up?

106 C1: I think I mix it up, quite a lot (.) for me depending on what's before and what's coming after, like the excerpt you just

107 R: Yeah.=

108 R&C1: =ba da da, ba da da, ba da da, boom. [Sing together and R laughter]

109 C1: Then you have this-this downward movement befo:re, so u:m (.) as you can see in the study, how I did the movements=

110 R: =Mm: hmm.

111 C1: with, it kind of (.) at that point, it gave me the opportunity of just using the right arm and giving the solo to the bass drum=

112 R: =Mm: hmm.

113 C1: but at another point, you might be (.) u::m (.) starting at another point and going towards the bass drum (.) in another movement=

114 R: =Mm: hmm.

115 C1: but the same (.) the same attack, the same kind of mea::ning, within the music would (0.3) go towards the same movement so (.) uh:: (.) in different cases, or (0.5) as I watch other uh: conductors (.) like Dudamel (.) last week

116 R: Mm: hmm, yeah-yeah on Friday.=

117 C1: =on Friday, he was giving the trombones the same signal for the whole of Tchaikovsky's *Sixth Symphony*. [R claps simultaneous with C1 & R jovial laughter]

118 R: What was it like, u::h?

119 C1: [Demonstrates the movement]

120 R: Oh (.) yeah. [C1 & R laughter]

121 C1: Ta (.) da::. [C1 & R jovial laughter]

122 C1: So::: (1.0) so like the fifteenth time I started thinking, now they'll probably know what he is going to do. [C1 & R jovial laughter]

123 R: Good point.

124 C1: U::m: (.) it's (.) but it's (.) I-I think it's important to kind of have (.) some u:m: (.) emblems (.) u:m:...

125 R: Mm: hmm.

126 C1: to use that word=

127 R: =Mm: hmm.

128 C1: that if you have (0.3) an orchestra you are working with over time, to both make them, uh:: (.) know what you are going to do, make them secure, but also (.) change the movements so it's not always the same to keep the interest.

129 R: Yeah, good point. [R laughter] And u:m: (.) in creating these emblems that occur in sound moments, do think about your movements maybe not while you're moving, but

130 C1: Yeah.

131 R: do you think about these movements as having different dimensions you know the x, the back and front [moves in that manner] the y:

132 C1: Yeah.

133 R: the right and left [moves in that manner] and then the z, the up and down [moves in that manner]=

134 C1: =Yeah.

135 R: do you think about them as having all of this space to work in?

136 C1: U::h (.) yes, sadly not so:: much [R and C1 giggle] I would like to do it more

137 R: Yeah.

138 C1: for sure, yeah but I do.=

139 R: =Yeah, it's quite an amazing thing that we have all of these dimensions. They've done studies where they've asked (.) "listen to music and then draw with your pencil," but they only...

140 C1: I've done that study

141 R: O::h, okay.

142 C1: here.

143 R: A:h okay, cool [C1 laughter] u:m: (0.3) but they can adjust the pressure on the page and they can adjust the shape, but I know a lot of people expressed frustrations about (.) with the difficult and more complex ones not being able to draw more than two dimensions.=

144 C1: =Mmm hmm.

145 R: Now I'll give to you just a couple of examples and you describe to me verbally or sh::ow me what you might do, a::nd there might be many answers, okay. If the sound moment is rising in pitch, uh:: meaning the pitch is going up, what action might you do so like do::: [sings ascending pitch glide with a gesture moving up in the right hand] or with the voice where they really want to bring the pitch up what action might you do?

146 C1: Yeah, uh for me the obvious is like you just did.=

147 R: =Yeah [R and C1 laughter and slaps hand] bad, bad, bad. [R jovial laughter]

148 C1: Yes [R laughter] but it is, it is a na..natural movement which um: (.) also is a gesture that, I for example use when I am talking with others in conversations

149 R: Mm: hmm.

150 C1: um:: (.) I would use that kind of gesture going up with the hand, one hand, or the other, since I am using the stick in the left hand=

151 R: =Yeah.

152 C1: or baton.

153 R: Mm: hmm.

154 C1: And (.) u:m (.) also, you are kind of having this non-verbal communication with the musician as a conductor, so for me it would be natural to use the same gesture as I would in a normal conversation, a::nd

155 R: Mm:::.

156 C1: as you said, it also depends on, like okay (.) you have done this as a natural thing, sometimes maybe you want to change it a bit.=

157 R: =Yeah, perhaps::.

158 C1: Again for keeping interest or you have, or, perhaps you know, um:: (.) when you have established this communication with the musicians=

159 R: =Mm: hmm.

160 C1: and after some rehearsals the musicians know this is coming=

161 R: =Mm: hmm.

162 C1: then you can do something else to support it

163 R: Mm: hmm:.

164 C1: just to keep the flow without showing=

165 R: =everything.

166 C1: Yeah.=

167 R: =Yeah, cool. In a sound moment with like a fa:lling pitch, perhaps in a choral moment even, where the pitch is coming down

168 C1: Yeah.=

169 R: =or falling, would you do the opposite?

170 C1: (2.0) Yes, the first thing u::m:

171 R: Or is it dependent on like?

172 C1: yeah the first thing in my mind is like, because upward-upward going pitches are (.) uh (.) I think about they're more often gliding while downward, is more stepwise.

173 R: O:::h.

174 C1: So...

175 R: It might be different?

176 C1: It might be different, or (0.3) at least as I know (.) e: (.) it's more stepwise, downward, and for that I would show e: (.) or put on the gesture of going downward with the movement

177 R: Mm::: (.) mm: hmm: (.) o::h.

178 C1: But gliding down uh: (.) would probably lose a lot of energy, I think. If you are setting and going it's, I think it is more easy to have the energy rising.

179 R: Mm:::.

180 C1: So:::..=

181 R: =Those are really great points.

182 C1: Yeah.

183 R: I don't know why that is?

184 C1: No, neither.

185 R: But even just watching the video, or if we play back the video of you just doing that (.) that is (.) I can feel that (.) yeah (.) the energy difference.=

186 C1: =Yeah, yeah.

187 R: I don't know why though [R & C1 laughter] perhaps I need to look into that. Um:: (.) if the sound moment is light and sudden (.) in my study there was a little u:m: (.) ba da, ba da, ba da, ba da, ba da, ba da, ba da, ba da.....ba da dup...ba da deet [sings tune] those little ba da deet [spoken rhythm] moments

188 C1: Mm: hm::.

189 R: um what kind of things, I don't remember everything that you did but=

190 C1: =Yeah.

191 R: what kind of things might you do in those little ba da dut (.) ba da deet [spoken rhythm and chuckle] moments?

192 C1: Yes, u::m (.) um: (.) before we had the working session=

193 R: =Yeah.

194 C1: I gave, u::m (.) at least I thought I was giving a major, major force.

195 R: Yeah.=

196 C1: =Like, ya: da lan [sung rhythm]

197 R: Yeah.

198 C1: to a huge an ensemble [R laughter] and after we worked with the movement to make it e:: (.) smaller and-and according to the orchestration within the ambitus, tessitura or range of the instruments. And so yes (0.3) n-now I would give a much lighter is dab=

199 R: =Yeah,

200 C1: the right...?

201 R: yeah sure dab. I guess in my study I call it a dab, you're so nice to use my te:rms, but no, um: (.) u:m yeah, that's great.

202 C1: Mm:: (.) so (.) and also as we had in the learning session, like the first, ya: du da [sung moment]

203 R: Mm::.

204 C1: and then I went from the outside using, also th-the independent movements of the fingers=

205 R: =Ya::.

206 C1: since it's these three grace notes before the chord.=

207 R: =Yea::h, something different.

208 C1: For sure, yeah, something different.

209 R: Lots of things you can use with your imagination. One conductor um: (.) showed me this really cool cut off where he like (.) turns his hand upside down

210 C1: Mm: mm::.

211 R: and then um: (.) it's with a real soft chord at the end of the piece, and then you wrap your fingers arou:nd

212 C1: Yeah.

213 R: and then let go of the sound.

214 C1: Mm:.

215 R: It's the coolest thing [C1 laughter] I've used it in Percy Grainger's *Colonial Song*, because the note is like paa:::* [soft sound] and you bring it down, and then you: (.) just* kind* of* [demonstrates cut off movement] anyway that's aside from the interview

216 C1: Na.=

217 R: =but these are things you can do to shape, ya know.

218 C1: One of the points with those small dabs is (0.8) or as I noticed

219 R: Mm: hmm.

220 C1: u:m: (.) I kind of took the baton away

221 R: O:::h (.) yeah.

222 C1: and used the other hand

223 R: Oh (.) cool.=

224 C1: =which was enough, even though they didn't play

225 R: Yeah.

226 C1: in between.=

227 R: =Yeah.

228 C1: So, because it was this, one single note

229 R: Mm: hmm.

230 C1: where they (.) or chord where they were playing.=

231 R: =Yea:h.

232 C1: So it kind of was enough

233 R: Yeah.

234 C1: to show all the information with the other hand.

235 R: Just the:: (.) o:h neat (.) oh neat (.) I never even observed that.

236 C1: Okay.

237 R: No.=
 238 C1: =No?
 239 R: Sometimes I don't think about what hand is doing what
 240 C1: Uh uh?=
 241 R: =and of course I am seeing your mirror right? (0.5) Well
 242 C1: Ya.=
 243 R: =so I never even thought, I am glad you mentioned that in the interview because now I can go back and look at that. [Laughter] In a moment like a stro::ng bass drum hit or a cymbal crash, ya know like
 244 C1: Uh huh.
 245 R: this boom or cshhh [makes instrument sound effect] um: (.) do you think you would move differently for a cymbal crash than you would a bass drum?
 246 C1: For sure
 247 R: Mm: hmm.
 248 C1: I would. U::m (4.0) e: (.) I say for sure because of the e::m (.) sound going towards and after the cymbal crash.=
 249 R: =Mm:::.
 250 C1: Like, and (.) or the movement from the musician. We were working with some u::m what are, drum players words?
 251 R: Percussion guys?
 252 C1: Percussionists, yeah [soft giggle] at school and he kind of showed us the difference of just doing the hit, and like, using your whole body and
 253 R: O:::h.
 254 C1: and the moving, even though after you struck the bass drum=
 255 R: =Yeah.
 256 C1: they are still kind of within the movements. And there is actually a difference in the sound quality
 257 R: Mm: hmm.
 258 C1: of the: (.) so-so you would try to blend u::h (.) the different sounds with different movements.=
 259 R: =Mm: hmm.
 260 C1: But again it depends, on the musical environment and what else is happening in the orchestra.
 261 R: Mm: hm::.
 262 C1: For sure.
 263 R: Yeah, for sure (.) great. Do you think about these m:oments as having shape? And I guess that's kind of a redundant question [C1 soft chuckle] because one of the first things you said in the interview was that you felt like you do shape the sound.=
 264 C1: =Yes.
 265 R: But um: (.) in one of the previous interviews the gentleman was saying like, "well I don't think of myself as drawing a triangle," but uh: (.) but there are obviously some (0.5) shapes that are incorporated as musical objects, um::
 266 C1: Yes.=
 267 R: =like u::m: (.) perhaps a circle or..
 268 C1: Mm: mm: (1.5) I've seen some conductors like doing a big circle [demonstrates a circular movement]
 269 R: Mm: hmm.
 270 C1: and say "play." [Laughter]
 271 R: Mm: hmm, yeah.
 272 C1: Because the musicians know what to do, er u:h (.) I don't really know the reason, but it looks like it. [Giggle]
 273 R: Yeah.
 274 C1: And, and...
 275 R: I think the reason is tied to the energy it must be in the acceleration of the way that you can draw a circle like this kind of zzzshoomp [demonstrates a circular movement with sound effect] of the weight of coming to the bottom of the circle, kind of like zzzshoomp, zzzshoomp.=[Circular movement with sound effect]
 276 C1: =Yeah.
 277 R: Ba da dee, ba dur do da::, ba dur do da:: [sings made-up tune with circular movement] something like that
 278 C1: Yes.=
 279 R: =or maybe in a waltz you might do that, er:::
 280 C1: Yeah, and that (.) yeah yeah for sure (.) but then you have, then you have um (.) a changing movement, then you have a direction against a lower point, and you are kind of sh:: (.) within that movement, you are showing it's more heavy in the bottom and getting
 281 R: Mm: hmm.
 282 C1: and lighter in between and so on

283 R: Mm: hmm.=

284 C1: =but if you have a constant speed, you are kind of not=

285 R: =showing...

286 C1: not showing the same thing.

287 R: That's right, that's right.

288 C1: Even though you might be showing something else.

289 R: Mm: hmm.

290 C1: Mm:: (0.3) example (0.5) Stra::vinsky,

291 R: Mm: hmm, mm: hmm.

292 C1: then you might (0.5) as I learned from my teacher

293 R: Yeah. [C1 and R laughter]

294 C1: uh (.) which is within the study=

295 R: =Yeah, yeah.

296 C1: and the movement of doing the triangle=

297 R: =Yes.

298 C1: as a sound. Dat du, dat du, dat du, dat du, dat du, dat du, dat du, dat du. [Demonstrates 2.67 triangle conducting patterns simultaneous to a spoken rhythm]

299 R: Mm: hmm.

300 C1: And...

301 R: and it's for cla:: (.) to be clear.=

302 C1: =To be clear=

303 R: =and precise

304 C1: Yeah, yeah.

305 R: and it's so complicated they just want to see that.

306 C1: Yeah.

307 R: Mm: hmm.

308 C1: So so, and then you are um: (.) kind of (2.0) reducing

309 R: Mm: hmm.

310 C1: the amount of information

311 R: Yeah.

312 C1: to make it even more clear.

313 R: Yeah.

314 C1: So sometimes you are (1.5) drawing out really clear shapes.

315 R: Mm: hmm, mm: hmm, yeah this is really valid.=

316 C1: =Yeah.

317 R: Um:: (.) huh, in one of the summer sessions I did, we called it the Stravinsky support group=

318 C1: =[Laughter] Yeah.

319 R: and we'd all go after the conducting with the big maestros ya know, after we conducted in

320 C1: Yeah, yeah.=

321 R: =front of them, we would go and do Stravinsky in like a little (.) we'd all conduct for each other and sing for each other and we'd help each other with the Stravinsky excerpts, and

322 C1: Mm: hmm.=

323 R: =uh (.) like *L' Histoire du Soldat*, I've done the Royal March from that, anyway, we'd all sing for each other and

324 C1: Mm: hmm, mm: hmm.

325 R: help coach each other=

326 C1: =Mm: hmm.

327 R: and we called it the support group. [R & C1 Laughter] A::nyway [C1 chuckle] but u::m (.) something in my work that I find is something called salience and to me u:m (.) salience is, u::m in the sou::nd (.) it's what happens (0.2) what makes a sound stand out, happens sort of relative to its neighbour sounds, so if like a forte piano ya know, is really quiet before, and then we have this fortissimo moment and then piano again.

328 C1: Mm::

329 R: Sort of like this salience (.) in gesture (0.3) do you think that conductors use this ide::a in their gestures, this salience what happens before and after the gesture?

330 C1: Yes, I would (0.5) um:: (1.5) for example this forte piano with the piano before

331 R: Mm: hmm.

332 C1: you might of had piano for awhi::le, and if it's the same beat pattern for awhi::le, you might (0.3) stop before the forte piano

333 R: Mm mm::=

334 C1: =and then give it.

335 R: Mm: hmm.

336 C1: So (.) so (.) if-if the forte piano didn't come at that point (.) you maybe would keep your beat pattern (0.3) and

337 R: Mm: hmm.
 338 C1: the flow of the music.
 339 R: Yeah.=
 340 C1: =Then it kind of goes out of the pattern before the forte piano
 341 R: Mm: hmm.
 342 C1: to prepare for the attack.
 343 R: Mm: hmm. Did you find it weird, oh sorry to cut you off. (1.0) Did you find it weird when I made you only trace those sound moments and drop the pattern? Was that kind of weird [laughter] for you? Or I don't know if weird
 344 C1: Yeah.=
 345 R: =is the right word, but did you...?
 346 C1: No no, but we actually tried it before.=
 347 R: =Yeah
 348 C1: So it's:....
 349 R: so you were okay trying it? [Laughter]
 350 C1: Yeah really okay, and, and I personally think it is a very good I::D., [idea] because it makes you aware
 351 R: Mm:::
 352 C1: of u::m (.) what you are actually trying to show
 353 R: Mm: hmm.
 354 C1: and and it takes away (2.0) u::h (1.5) the feeling?
 355 R: Mm: hmm.
 356 C1: U::h, would you say, føle (følelsen)?
 357 R: Yeah.
 358 C1: That's a Norwegian word.=
 359 R: =Yeah, yeah.
 360 C1: U::m (2.0) my point is (0.5) when you have these u::m (.) ma:: (.) major points, or these points, it doesn't have to major,
 361 R: Mmm hmm (.)
yeah.=
 362 C1: =which you want to show something
 363 R: Mm: hmm.
 364 C1: it is a trap that you are in between (0.5) just giving something without a meaning
 365 R: Mm: hmm.
 366 C1: because you have been told to do this beat pattern and so...
 367 R: Mm: hmm, mm: hmm.
 368 C1: so:::....
 369 R: That's so:: true.
 370 C1: yeah, so it makes you reflect on what you are actually doing between those moments
 371 R: Yeah.
 372 C1: which might be just as important.
 373 R: Yeah, and I think you kind of answered my next question. [Laughter]
 374 C1: Okay. [R & C1 Laughter]=
 375 R: =You're just s:o smart, um:: (.) so you can add to this if you want (0.3) I was going to ask you, do you think your mo:vements are spontaneous and occur directly in the mo:ment, or sometimes (0.3) or both, do you think a:head (0.3) to the sound moment and sort of pre-plan an action?
 376 C1: U::h (1.0) well sadly, a lot comes sponta::neously (.) and why do I say sadly, because it's not always (.) it mi::ght have been better if you had made a thought of it before
 377 R: Mm::.
 378 C1: and then, and then I don't (.) I don't mean if you prepare enough you have kind of settled all the movements
 379 R: Mm: hmm.
 380 C1: but, then you have this arsenal, or, of different movements which you can use in the moments.
 381 R: Mm: hmm,
 Mm: hmm.
 382 C1: Which also can be (.) and if you have prepared for different movements at the same spot, then spontaneously you can choose between them
 383 R: Mm: hmm.
 384 C1: which then still makes it spontaneously.=

385 R: =Mm: hmm, mm: hmm.

386 C1: So it's a balance between (0.5) being in the moment and bringing what you have prepared from before.

387 R: Mm: hmm, and when you say uh: prepared, you mean u::m (.) having these knowledges of how to do a movement (0.3) or also prepare (.) preparing it from the score (.) or from a recording, or from the sourcend or?=
 388 C1: =Both, like when I did the u::h preparing for u:h (.) our march excerpts

389 R: Yeah (.) yeah.

390 C1: like I said, "da da yum, da da yum, da da yum (0.3) bum." [Sings tune]

391 R: Mm: hmm.

392 C1: I would, I don't believe I would do the same movement as I did if I didn't prepare

393 R: Mm: hmm.=

394 C1: =because I was kind of mentally thinking (0.3) okay, what do I want to show? This (.) this (.) this and this.

395 R: Mm: hmm.

396 C1: It's four bea::ts, bass drum in the end, okay (.) I am doing ya:: du dum [sings melodic fragment] and okay (0.5) why am I doing both? (1.0) Yes because it's (.) yeah (.) the whole group is playing the same thing

397 R: Mm:::

398 C1: and I don't have to kind of show a different thing

399 R: Mm: hmm, mm: hmm.=

400 C1: =so I wanted to make it clear, ya da dum, ba da dum, ba da dum (0.3) bum. [Sings tune]

401 R: Mm: hmm.

402 C1: And then at some point (.) okay (0.3) should I do both hands? No (0.3) I don't have to, I can stop with the one hand

403 R: Mm: hmm.

404 C1: going up with the o::ther

405 R: Mm: hmm.=

406 C1: =and then starting the movement when the baton stops [coughs] and

407 R: Yeah.

408 C1: like I: (.) since I am still learning (0.5) how to

409 R: Ya, no.=

410 C1: =conduct, I have to think throu::gh such movements.

411 R: Yeah (.) me too.

412 C1: And..

413 R: I::'m still learning [C1 Laughter] I hope if we're professional maestros someday that we'll still be thinking throu::gh=

414 C1: =Yeah yeah (.) I hope (.) yeah-yeah, I hope that we'll be learning for a lot of=

415 R: = Or...

416 C1: so, but that was kind of my point. I think it's good to be thinking through it, and (1.0) on the podium if it doesn't work, you can do something else=

417 R: =Yeah.

418 C1: but at least then you have a plan.=

419 R: =Yeah.

420 C1: It's easier to change a plan, than making a plan at the time.

421 R: Mm::: really good point, really good point [laughter] great. (1.0) Mm: (.) I'll just make sure I am covering everything I have mm:::. Great, I'll just run through your quick thoughts about the accuracy tests

422 C1: Mm: mm:.

423 R: and we'll go through each part. U::m (.) first of all, do you think your score improved from the first test to the second test? I don't know if it has (.) I haven't scored them yet, but do you think it improved or would you say it was the same, or?

424 C1: I think it would (0.3) it has impro::ved.

425 R: Mm:.

426 C1: And (1.5) mostly because then I heard the excerpts ma:ny times.

427 R: Yeah [C1 and R laughter] you were familiar with them.=

428 C1: Yeah, I am familiar with them, and then when we heard three different sounds it was ea:sier to remember the sounds

429 R: Uh hu::h.

430 C1: kind of the first time we had the paper where we could sketch the sounds=

431 R: =Yeah.

432 C1: which we didn't have the second time, but I didn't feel the nee::d for it

433 R: Mm: hmm.

434 C1: and, and then also, I was more conscious about the movements of the conductor

435 R: Mm: hmm (.) mm: hmm (.) mm: hmm.=

436 C1: =a::nd I've learned mo::re about how to look at the skeleton.

437 R: Mm: hmm.

438 C1: In the case of which you explained when the frame rate is going down it sometimes might lag and=

439 R: =Mm: hmm.

440 C1: so at some points I was sitting and (.) oka::y [C1 and R laughter] what was that kind of suppose to be?

441 R: Yeah, yeah. [Laughter]

442 C1: So after some training you start to kind of fill in the gaps

443 R: Yeah.

444 C1: yourself (0.3) and then okay realizing (0.5) it might be this or this.=

445 R: =That's right. Perfect so (0.5) when you um:: (.) when you listened to the three audio:s: and then saw the one gesture, or you watched the one gesture and heard the three audios, which did you find easier?

446 C1: Um:: (1.5) the first one.=

447 R: =Listening first

448 C1: Listening

449 R: and then seeing the gesture?

450 C1: listening and then seeing the gesture.

451 R: Mm: hmm, and then in Part Two, where you had three different gestures and one sound, or you had one sound and then three different gestures, and had to select the gesture that best fit with the sound, did you like hearing the sound fir::st u::m: (.) and then seeing the three gestures or seeing the three gestures and then hearing the sound?

452 C1: And then I liked to s:ee the gestures and then hear the sound.

453 R: Mm::.

454 C1: U::m (1.5) why? (2.0) Because (0.5) then I kind of (.) I made my (.) I saw the gestures and I tried to connect it to the sounds because I already knew the excerpts

455 R: Mm: hmm.

456 C1: or:: (1.0) I wasn't very sure, but I had an I::D.

457 R: Mm: hmm, mm: hmm, mm: hmm.

458 C1: and then when I heard the sound (0.2) it kind of either confirmed, or gave me another I::D. but

459 R: O::h.

460 C1: it was easier.

461 R: Oka::y.

462 C1: When I only heard the sound it was (0.5) yeah (0.3) I found it more difficult.

463 R: To hear the sound first?

464 C1: Ya.

465 R: Great, and then um:: (.) Part Three (.) you had to watch three different audio and gesture combinations and select the-the audio gesture number that made the most u::m: (.) auditory and kinesthetic sense (0.3) the best fit.

466 C1: Yes.

467 R: What were your thoughts about tha::t (0.3) what did you think about doing tha:t?

468 C1: And for me it was sometimes (.) uh: it felt difficult to choose between, like one was uh (.) excluded and then you had to kind of choose between two of the others and sometimes I didn't feel quite shecure (.) secure is it the (.) uh (.) was it is suppose to be together or wasn't it?

469 R: Mm::.

470 C1: Yeah, like one was fitting, but the time and the movement was a bit stretched differently and the other was also almost fitting and then I didn't know if it was the (0.5) motion capture, or actually if it was another movement.=

471 R: =Mm: hmm (.) yeah (.) good point. [Chuckle] Great, perfect (.) u:m: (.) we are nearing the end so:: [chuckle] um:: (.) I:: (0.3) in my work I have observed two scenarios that I find really like a paradox (.) and I want to get your thoughts on these two scenarios. U::m (.) the one the first one is probably less common and the second one may be more common, but it's this, the conductor is so beau::tiful and expressive and has gestures that have a lot of affective qualities=

472 C1: =Mm: hmm.

473 R: and um: (.) yet the orchestra or choir let's say sings or plays pretty blandly without much shape (.) musical shape or expression. And then the opposite where the ensemble sings or plays beautifully with phrasing and affect and they adjust their timing and their volume changes, yet the conducting is really ya know bland and...=

474 C1: =Mm: hmm.

475 C1&R: boring

476 R: simply a beat pattern without little else. So (.) what do you think about these two occurrences, um: (.) that happen? And this, just to let ya know is like (.) the concert performance where the rehearsal learning has been established and the conductor has established this is how he wants it to be

477 C1: Ya.=

478 R: =and they have discussed how they are going to do it

479 C1: Mm hmm.
480 R: but this is like the final performance.
481 C1: Yeah.
482 R: What do you think?
483 C1: Another thing is also (.) if it's professional or amateur.
484 R: Yes, that's ri:ght, so you can give me your opinion on both maybe?
485 C1: Yeah u::m: (.) for the amateur, I mean if you have these very nice movements, or emblems, or gestures (0.5) and you do it all the way in the rehearsals as well, and if you didn't ki:: (.) establish the ground (.) grounding first, like to let the musicians play the music without the (1.5) u:::h (.) "musessary"
486 R: Mm:: hmm::.
487 C1: Yeah, playing the music without making the music, somehow [R laughter] well-well that's my first thought of (.) if-if those let's say those (.) "right movements" in (.) what you call this? [Makes a visual gesture of quotation marks]
488 R: Quotations?
489 C1: In quotations [R laughter] yes, and if they don't wor::k (.) my I::D. would be to go back (.) take them away and do the u::h beating pattern more clearly and reduce the i::nformation
490 R: Mm: hmm.
491 C1: and then add the information later on. [Clears throat with a cough] At least for amateur musicians, professionals you kind of expect them to know how to (0.5) respond on the movements.
492 R: Yeah.
493 C1: And one example was it (2.0) shucks, yeah a professional composer also conducting?
494 R: O::h, maybe Strauss?
495 C1: Yeah-yeah probably Strauss and he was conducting this professional orchestra and they are pla::ying like really into it=
496 R: =Yeah.
497 C1: and he is standing and doing this conducting you know [C1 models boring disinterested face and basic conducting pattern] and then he is looking down in the score [R laughter] and looking up [R laughter] and his quotation was u:::h "don't even look at the trombones
498 R: Ya.
499 C1: it will only encourage them."
500 R: Ya. [Laughter]
501 C1: But, and-and one guy he asked this question, "Why does he look in the score he knows the music?"=
502 R: =He wrote it. [Laughter]
503 C1: He wrote it, yeah. Is this a famous: story or?
504 R: No no.
505 C1: Oh, okay.
506 R: No no, keep going [C1 laughter] I was just filling in the gaps
507 C1: Yeah-yeah [laughter] yeah-yeah.
508 R: because he was the composer
509 C1: Yeah.
510 R: so he should know it.
511 C1: He knows the music
512 R: Ri::ght.
513 C1: and then, and then it's (.) e: this guy he-he translated into (.) u:m: that is (.) he is showing the professional mu::sicians (.) that e: (.) like don't look at the conductor the information is written in the notes=
514 R: =Mm:::
515 C1: they have to play, they are not playing what is in
516 R: Mm::: hmm::.
517 C1: the notes or their score.
518 R: Yeah.
519 C1: So:: (.) so even though he is just standing and doing this cold conducting looks going
520 R: Yeah-yeah (0.3) yeah. [Giggles]=
521 C1: =he is giving out a lot of information (.) so (.) yeah (.) again that's also one of the difficulties I would believe studying co::nducting because it's so::: many different uh
522 R: Yeah. [Giggles]
523 C1: settings. You have to reduce them. So:: I would reduce this to um: (.) amateur with not working gestures
524 R: Yeah.=
525 C1: =then it's maybe too early
526 R: Mm: hmm.
527 C1: or you haven't done the basics.
528 R: Mm: hmm.

529 C1: And with professionals if (.) yeah I would say it would work much better to give less information

530 R: Mm:::.

531 C1: because they are able to, or you would expect them to be able.

532 R: Mm:: hmm:: ah (.) great, no this is good (.) and u:m: (.) I just have a couple more questions from my sheet over here and then we are pretty much through that so:: (.) I'll just go to it because I forgot to print it out. [R and C1 laughter] A:::h, let me find it here. (2.0) I have to open the right folder [laughter] too many folders on my desktop this is the problem (.) there we go (.) a::h let's see (.) had you conducted any of these four march excerpts before?

533 C1: No.

534 R: Great (3.0) and um:: (.) what factors influenced you to take part in the study, did Per...you were telling me I think before, Per Sigmund encouraged you?

535 C1: At least he told me about it (.) he called me (.) and I: (1.0) said yes right away, when I knew I had time

536 R: Yeah.

537 C1: because I thought it was learning for me as well=

538 R: =Yeah.

539 C1: helpful.

540 R: Great, and then which of these u:m: (.) I guess um: (.) of the four emblems that I've been working with the sort of press, and the gl::des, and the dabs and the punches (1.0) which are the (0.3) easiest for you to incorporate in the moment or all of them?

541 C1: Yeah, yeah [R laughter] u:m: (.) the light dab.

542 R: The dab?

543 C1: Yeah.=

544 R: =Yeah.

545 C1: The light dab.

546 R: And u:m: (.) is there one that is more challenging, to put in?

547 C1: Mm: mm, and I think the-the press, which requires a sustai::ned energy.

548 R: Mm: hmm: (.) mm: hmm: (.) and then um: (.) do you consider uh, or based on your participa::tion having gone through the study (.) if I were to come back to Oslo next year

549 C1: Mm: hmm.

550 R: would you encourage (.) which I probably won't be able to afford to [R & C1 laughter] but uh (.) would you encourage other conductors with your experience level to try something like this?

551 C1: For sure (.) for sure, I think it is really helpful within the teaching of conducting or the learning, as well.=

552 R: =Yeah, great, and then do you consider your participation to be of lasting benefit to you um: (.) as a conductor, I guess by this I mean u:m: (.) do you feel some of the things you've gained in this study even though it was short time, can you use them in your choir rehearsal this week, that kind of thing?

553 C1: Yes, I would. [Chuckle]

554 R: Great [laughter] and then (.) from doing these tests where you had to observe the conducting, do you feel that you're better at picking out these little gestures when, I when I show them to you? Like um: (.) you're good at i::dentifying them now, like matching the sounds and

555 C1: Mm: hmm.

556 R: being able to observe them and make that connection, maybe, I guess you were saying from familiarity you got good at it.

557 C1: Yeah-yeah, yeah at the movements yes.

558 R: Yeah (.) and then u:m::...=

559 C1: =And to fill in [clears throat] I was kind of looking, looking for, uh, in another way after the learning session.

560 R: Yeah.

561 C1: I was kind of lo.. loo::king for, looking more specific for certain points.

562 R: Mm: hmm.

563 C1: Like when we did without the beat pattern=

564 R: =Mm: hmm.

565 C1: then we only did the (.) uh (.) major points

566 R: Mm: hmm.

567 C1: and in the pulses:::, would you call it?

568 R: Yeah.

569 C1: Yeah (.) yeah um: (.) then I was more focused in looking for the specific points.

570 R: Mm:::..=

571 C1: =Okay, do I see this emblem? Yes (.) and it fits to that.

572 R: Oh (.) okay.

573 C1: Yeah.*

574 R: Yeah.*

575 C1: So I was kind of paying less attention to what's happening in between

576 R: Mm: hmm.

577 C1: as I now, would suppose a musician would do, when you are sitting in the orchestra.

578 R: Right (.) awesome. Do think um: (.) uh: yourself and um: (.) Conductor Two, who got the chance to work with u:m: (.) the dance performance lady with some (.) I suppose (.) her body mind flow, a few exercises from that and a little bit of Tai Chi inspired movement=

579 C1: =Mm: mm:.

580 R: do you feel that was beneficial to do, even a short stint?

581 C1: E:: (1.0) yes. I think it was beneficial, um:: (.) probably mostly because we had done it before.

582 R: O::h.=

583 C1: =So it was kind of more of the sa:me, and it-it...

584 R: How (.) which way is it helpful for you? Like what do you feel it helps you with, because that's something I struggle with

585 C1: Yeah, yeah.=

586 R: =like okay (.) this is da::ncing or this is a different type of philosophy altogether so::

587 C1: Yeah.

588 R: how can I apply this to the podium, how do you feel it is good for tha::t?

589 C1: I-I think it's important for me to point out that, let's say (.) Tai Chi or Chi Gong or

590 R: Mm: hm.

591 C1: em, I think it's helpful for (.) u:m: (.) your everyday life or

592 R: Mm:::.

593 C1: whatever, if you're working (.) like working with conducti:ng (0.3) is one of all the areas it would help you with=

594 R: =Mm: hm.

595 C1: because of this body mind flow energy=

596 R: =Mm::.

597 C1: or, I think if you (0.3) if you believe that it works you kind of somehow also believe that you have this inner energy. [Chuckles]

598 R: Mm:: ah:. [C1 laughter] First you have to have the belief that it exists.

599 C1: I think it would help.=

600 R: =Yeah. [C1 and R laughter].

601 C1: To believe in that energy to-to make contact, but for sure these-these exercises, this movement (.) helps you (.) if it helps you clear the mi::nd (0.5) then it helps you. If it helps you be more aware of your movements (.) then it helps in that way

602 R: Mm: hmm.

603 C1: if it makes the connection between your thoughts and the actual movements, it also helps you.

604 R: Mm: hmm.=

605 C1: =So I think it's able to help you in many ways

606 R: Mm: hmm.

607 C1: but it depends on what you are (0.3) em (.) both your mental e:: (.) not state, but what you are putting into it=

608 R: =Mm: hmm.

609 C1: and it takes time

610 R: Mm: hmm.

611 C1: I believe. So:: this one session was to show us the exercises

612 R: Mm: hmm.=

613 C1: =so you don't get the benefit out of that session

614 R: Yeah.

615 C1: but if you actually do the exercises afterwards, you would notice the benefit.

616 R: Yeah (.) great (.) awesome (0.2) perfect. So, u:m: (.) do you consider yourself more capable to communicate this phrasing and shapes which you talked about at the beginning?

617 C1: Yes, much more.

618 R: Great, and do you consider yourself more capable to reflect the dynamics, and attacks, the articulations in your gestures?

619 C1: Yes, I do.

620 R: Great (.) and uh (.) I think (.) I think that's everything I have, but uh (.) before we adjourn um:: (.) u::m (.) do you feel like this motion capture and study have made you think about your-your own movements in a different way? And also, the second part would be (.) do feel that it's made you think about sound in a new way.

621 C1: Mm: mm: (.) yeah (.) for sure it's-it's always good to look at your (.) your own movements

622 R: Mm: hmm.

623 C1: from another view. [Laughter]

624 R: Yeah.

625 C1: And when it's recorded, then you have the time to reflect on it

626 R: Mm: hmm, mm: hmm.

627 C1: more then (.) because you have all the other things to reflect on when you're on the podium.

628 R: Right. [Laughter]
 629 C1: And (.) so yes, it really has helped me in thinking about my movements, em (.) also because we have been working with
 before, and at some point, I might like (.) after (.) 2 months of summer [laughter]
 630 R: Yeah.
 631 C1: [chuckle] yeah, e:: so this was really helpful for me to getting (.) also (0.3) to get back
 632 R: Into it?
 633 C1: into it.=
 634 R: =Like a refresher?
 635 C1: Yeah
 636 R: Yeah.
 637 C1: yeah a real refresher. So
 638 R: Oh (.) good.
 639 C1: so [giggle] the learning, was a lot for me.
 640 R: Yeah (.) yeah (0.3) great.
 641 C1: and-and for sure (.) it showed the focus on the dynamic
 642 R: Mm: hmm.
 643 C1: information of the sound, like when you said okay, "how is
 the instrumentation?" and that's-that's one of the points,
 but um: (.) I didn't know where to put it in, but=
 644 R: =Mm: hmm (.) yeah (0.2) that's okay.
 645 C1: but, when we did the um:: (.) stu.. score study
 646 R: Yeah.
 647 C1: before, we had only three lines
 648 R: Yeah.
 649 C1: like woodwinds, brass
 650 R: Mm: hmm.
 651 C1: and drums.
 652 R: Yeah, the condensed score.
 653 C1: Yeah, and um:: (.) when I studied all of it, I kind of made some thoughts about the movement, uh (.) or about the conducting
 654 R: Mm: hmm.
 655 C1: the shapes and so on, and when we started actually conducting
 656 R: Mm: hmm.
 657 C1: at first at that point not before
 658 R: Mm: hmm.
 659 C1: which might, would have been good em (.) then I realized they almost all played the upper, like the woodwinds.
 660 R: Right (.) yes
 661 C1: Yeah
 662 R: that's right.
 663 C1: even the trumpet player.
 664 R: Yeah, it's true. [Giggle]
 665 C1: So (0.3) so kind of the brass, the line with the brass it was not (.) e..
 666 R: Mm: hmm, present in the sound.
 667 C1: present ya in the sound.
 668 R: Mm: hmm.
 669 C1: And then, um: (.) in the first session we only did conduct, we really didn't work with it
 670 R: Mm: hmm.
 671 C1: so it was kind of unsecure
 672 R: Mm: hmm.
 673 C1: were we suppose to conduct the score
 674 R: Mm: hmm:::
 675 C1: or the sound? The=
 676 R: =The musicians or soundscape
 677 C1: Yeah (0.3) yeah.
 678 R: that was present.=
 679 C1: =Yeah, that was present.
 680 R: Oh (.) yeah that's a good point.
 681 C1: So, so kind of some of my movements was u::m...=
 682 R: =For the score reflected?
 683 C1: Yeah (.) re-reflected for the score (0.3) because in (.) when we-we're working
 684 R: Yeah.
 685 C1: it's the 'ensembleelsa'=

686 R: =Yeah.
 687 C1: in the second year=
 688 R: =Uh huh.
 689 C1: we-we conduct pianists, and then rehearse with the orchestra
 690 R: Oh, okay.
 691 C1: or have one rehearsal every month.
 692 R: Mm: hmm, mm: hmm.
 693 C1: So in the time
 between, you are
 kind of imagining
 the sounds or=
 694 R: =Mm: hmm.
 695 C1: like, you are suppose to give a pizzicato to the bass=
 696 R: =Yeah.=
 697 C1: =so then we are training how to do this pizzicato
 698 R: Yeah.
 699 C1: but the sound comes from the piano
 700 R: Yeah.
 701 C1: and it's bawm. [Sung sound effect]
 702 R: Bi::ng. [Sung sound effect and laughter]
 703 C1: So, u::h...
 704 R: That's right, which is different than boom. [Sung
 sound effect and laughter]
 705 C1: For sure. So, uh (.) so I
 came to the first session=
 706 R: =O:::h, yeah.
 707 C1: with this=
 708 R: =Mm: hmm.
 709 C1: u::m: (.) instilling
 710 R: Mm: hmm yeah.=
 711 C1: =that I was going to conduct what's=
 712 R: =there.
 713 C1: re-rrr-reflect no (.) no to reflect the score=
 714 R: =Yeah.
 715 C1: and not-not the musician
 716 R: Right.
 717 C1: but I quite quickly caught that we are suppose to do what they are playing.
 718 R: Yeah.
 719 C1: So as-as you said it looked like I, u:h (.) had a good score score-score study or, was able to take it, and then (.) because I was more
 conducting what they were playing
 720 R: Mm: hmm.
 721 C1: that's both in the score. For example, the second u::h (0.3) excerpt=
 722 R: =Yeah.
 723 C1: Ba ba ba, ba ba ba, bu:::m, da da da, da da da du:::. [Sings tune]
 724 R: Yeah.
 725 C1: The King march.
 726 R: Yeah.
 727 C1: The Barnum and Bailey's Favorite.
 728 R: Yes.
 729 C1: So it's (.) then they're only (0.5) we kind of made the movements e:: or (.) movements, a::nd u:m (.) the shapes, the gestures=
 730 R: Mm: hmm.
 731 C1: yes, according to what we were playing even though the brass were playing the same just one bar (0.5) repeating
 732 R: Mm: hmm, mm: hmm.
 733 C1: So if you had both the woodwind and the brass (.) you would do a
 734 R: A different thing?
 735 C1: A different gesture.
 736 R: Yeah.
 737 C1: And that was kind of:: (1.5) e::: yeah, so in first preparing I was: preparing this-this different gesture and had to change it.
 738 R: Mm: hm::: (1.0) yea::h (1.0) yea::h.
 739 C1: Yeah.
 740 R: Grea::t! [Laughter] Well it shows: your flexibility to be able to change in the moment (1.0) ya know

741 C1: Yes then (.) but in...
742 R: because maybe in a rea::l (.) like
I know this is a fake situation=
743 C1: =Yeah, yeah.
744 R: but in a rea::l situation in the orchestra: you'll have both there (.) but the woodwinds will struggle=
745 C1: =Mm: hmm.
746 R: and the brass don't need you
747 C1: Mm:.
748 R: so then you'll do something for the woodwind=
749 C1: =Mm: hmm.
750 R: and then you'll say oh no, now the brass need me
751 C1: Yeah.
752 R: I'm going back to them and
753 C1: Yeah.
754 R: now they both need me and I'll do this (.) but
755 C1: Yeah.
756 R: it's kind of cool, it wasn't intended to be like that I should say [laughter]
757 C1: Yeah. [Giggle]
758 R: but I'm glad it ma..made you be flexible. [Giggle]
759 C1: Yeah (.) yeah.
760 R: Yea::h.
761 C1: Yeah it's (.) yeah I only wanted to point it out e: fo..for the study because
762 R: Yeah (0.3) no:: (.) yeah.
763 C1: the amount of learning=
764 R: =Yeah.
765 C1: e::m (.) got much bigger when you (1.0) had been preparing something else and then you changed your mind and reduced it to
what they were playing=
766 R: =Mm: hmm yeah.
767 C1: which made it kind of ea:sier=
768 R: =Yeah.
769 C1: when you have less.
770 R: Yeah, that's good.
771 C1: With le (.) things..less things going on it was ea:sier to make cle...
772 R: Yea:h.
773 C1: clea:r gestures.
774 R: Oh, that's goo:d. Oh I'm glad you said that. That's really valuable and that's valuable for me that I can take home to
Calgary and Canada
775 C1: Mm: (1.0) mm:.
776 R: and u:m (.) think about that in the next phase because I'll have some um: (.) u::h (.) undergraduate student
conductors that I'll work with
777 C1: Yeah.
778 R: and I'm glad you said that because I think I'll keep that similar structure=
779 C1: =Yeah.
780 R: mm: hmm that works for them and let them know though when they do the score study, that it's just the:se.
781 C1: Yeah.=
782 R: =Yeah, well that's good. Well (.) um: (.) thank you for your ti:me and energy and commitment to the project it's been great having
your u:m (.) your thoughts about this whole process I really value them and uh (.) thank you for being invo::lved and it's been great
working with you and u::m:...
783 C1: Thanks for learning me.
784 R: Yea:h. Do you have any final thoughts? [Giggle]
785 C1: Well I made my (1.0) thoughts.
786 R: Yeah for an hour. [Laughter]
787 C1: For an hour.
788 R: But u:m: (1.0) yeah thanks.
789 C1: But it's a (.) it has been a goo:d stu:dy.
790 R: Oh good.
791 C1: A::nd I wish you good luck=
792 R: =Thanks
793 C1: with your work.=
794 R: =thanks. I know it's great, it's u::m:: (.) I know u::h (.) well it's kinda neat that you said you did that tracing study that I was
talking about

795 C1: Yeah (.) yea:h.
 796 R: and it's nice (.) in Oslo (.) they have a lot going on here
 797 C1: Yeah.=
 798 R: =with some really good studies and u::m (.) it's a really different concept for me to have like this conservatory performance body and the musicology, sort of more theoretical body (.) research body but (0.3) ya know (.) and where I'm from it's sort of all in the same, but it doesn't really matter it's all music (0.3) and it's ya know=
 799 C1: It is:::
 800 R: it's uh mind and expression (.) so... [laughter] but I'll stop recording, but yeah thanks I really appreciate it. [Turns off the recording devices]

Conductor Two

- 1 R: [Starts the recording devices] Well great, thanks for being here today [R & C2 chuckle] um::: (.) the purpose of this:: uh (.) today is just to talk about your feelings about the process
- 2 C2: Mm: mm::
- 3 R: of being in the motion capture lab and to talk briefly about what you thought (1.0) about the accuracy tests=
- 4 C2: =Mm mm::
- 5 R: and also to uh:: (.) to just discuss some of your general thoughts about conducting and philosophies and a little bit about your um:: (.) background and who you are and that kind of thing so
- 6 C2: Okay.
- 7 R: it's um: (0.3) ya know (0.3) pretty (.) I think a pretty good way to wrap-up everything we've done [chuckle]
- 8 C2: Yeah.=
- 9 R: =and it's really valuable for me (0.3) I suppose um: (.) these kinda (.) our discussions about everything are the most valuable
- 10 C2: Yeah.
- 11 R: to me (0.2) so (0.3) yeah. So please state your name in full in Norwegian. (2.0) So
- 12 C2: Well, yeah, it's u::: _____.
- 13 R: Excellent [R & C2 laughter] and how old are you?
- 14 C2: I'm twenty-two.
- 15 R: Excellent. [Chuckle]
- 16 C2: Yeah.
- 17 R: And um: (.) you're currently enrolled as an undergraduate student at the Norwegian Academy?
- 18 C2: Yeah.
- 19 R: And um: (.) what is your main area or program of studies there?
- 20 C2: It's music performance, piano performance.
- 21 R: Okay wonderful (0.3) and what year of your program are you in?
- 22 C2: Fourth. It's a four year bachelor degree.
- 23 R: Oh (.) okay::y.
- 24 C2: So.
- 25 R: So you're in your final year?
- 26 C2: Yeah.
- 27 R: That's great (0.3) and um: (.) for your conducting background you have taken (0.5) um:... have you taken two:: or fewer courses in conducting, or private lessons, or what
- 28 C2: Yeah I've...
- 29 R: is kind of the program you're doing?
- 30 C2: E:::m (.) well last year I::: (.) I::: had this um: (1.5) e::::
- 31 R: You can say the term in Norwegian (.) like what it's called.
- 32 C2: Yeah, it's ensemblel... it's a::: (.) a quite big elective course e::::
- 33 R: Oh.
- 34 C2: e::: which gives you thir::-thirty credits.
- 35 R: Oh.
- 36 C2: E::: so it's actually half of your study that year=
- 37 R: =Yeah.
- 38 C2: e::: (.) with Per Sigmund
- 39 R: Oh (.) okay.
- 40 C2: and um:::h (0.3) where we had um:::h (.) some rehearsals with ensembles and so on.
- 41 R: Oh, okay.
- 42 C2: E::: but before that, I've had lessons with him and others: e::::
- 43 R: Yeah, like pri..private um: (.) one-on-one kind of lessons?
- 44 C2: Yes (0.3) one on (.) one to one.
- 45 R: Oh (.) great.
- 46 C2: E::: (0.3) I've also taken some (0.5) courses mo::re e:::m (.) within band conducting
- 47 R: Yeah.
- 48 C2: when I was younger=
- 49 R: =Oh.
- 50 C2: e::: that's quite awhile ago now, and I've been to courses e::: with the orchestras too.
- 51 R: Yeah? The band conducting ones, were they um: (.) in your high school years or was that part of when you were first an undergrad (.) or?
- 52 C2: E::: no (.) it was earlier I was (0.3) onl.. I think was e:::m (.) sixteen, fifteen, sixteen.
- 53 R: Oh, okay.
- 54 C2: A::: and it was a course that you applied for because you were interested=

55 R: =Yeah.

56 C2: it was sort of e:: some of the summer courses that the Band u::m (.) Federation in Norway

57 R: O::h, and then?

58 C2: e:::: (1.0) are arranging every year.

59 R: Oh, neat and what u::m (.) where do they happen (0.3) at the academy or somewhere else?

60 C2: No, they were (1.5) in a place called Jevnaker it's just in the middle of Norway, they often arrange the courses in e:::: e: internet schools where they can have all the (1.0) all the participants staying there, so it's social and people are playing in the band for a week and...

61 R: Yea::h (.) so it's like a summer school?

62 C2: summer school, yeah.

63 R: Oh (.) okay.=

64 C2: =Yeah.

65 R: And um: (.) did you already tell me the name of it [chuckle]

66 C2: E:::

67 R: or the Norwegian name is good or what it's called?

68 C2: well the band federation is e::: NMF
abbreviated and that's e:: Norges
Musikkorps Forbund.=

69 R: =Oh (.) okay.

70 C2: Yeah (.) the band federation=

71 R: =Yeah.

72 C2: or wind band federation.

73 R: Yeah, and so you did u::m (.) a couple summers of that?

74 C2: Yeah, but that was when I was younger

75 R: Yeah.

76 C2: and much less experienced

77 R: Well (0.3) yea::h.

78 C2: but of course it was very good for me then.

79 R: Yeah-yeah and those were like (.) like little week long courses

80 C2: Yeah.

81 R: or two weeks or something?=
82 C2: =Yeah.

83 R: Great.

84 C2: And then later I was in e::: (.) in e::: (.) summer course that was for string instruments and more classical

85 R: Yeah.

86 C2: e:::: where we:: conducted string orchestras and so::...

87 R: Oh, wow and do you have to apply to do the program to get accepted? And...

88 C2: Yeah.=

89 R: =Yeah (.) that's great and that was um:: (.) in your:: like high school years or when you first?

90 C2: That was all through my high school years.

91 R: Oh, wow.*

92 C2: And then in my u::h (.) first two years of my:: um (0.3) undergraduate studies

93 R: Mm hmm, mm hmm.

94 C2: I applied for a Master class in Finland where I went and, it was only for one weekend=

95 R: =Yeah.

96 C2: but with (.) with a::: student orchestra from the Sibelius Academy and=

97 R: Oh, wo::w.

98 C2: and Professor Panula (0.3) so that was great. So::...

99 R: And what was the name of the professor again?

100 C2: Panula.

101 R: Okay

102 C2: Yeah.

103 R: wo:::w! That's rea:lly great thou::gh.

104 C2: Rea::lly inspiring.

105 R: Well yeah (.) all of these experiences have like sort of (.) you know (.) given you so:: much u::m (.) so much growth and development=

106 C2: =Yeah.

107 R: and ya know (.) gaining new techni::ques and ide::as and u::h

108 C2: Yea::h.

109 R: what a great thing and for so::.. like (.) to be able to do so::me of them when you're younger

110 C2: Yeah.
 111 R: is so wonderful.=
 112 C2: =Yeah, I think the process stops, but
 113 R: Mmm hmm.
 114 C2: now when I mention all those conducting courses that I went to=
 115 R: =Yeah.
 116 C2: I don't feel that those are the main things of my: development
 117 R: Yeah.
 118 C2: as a conducting student, because
 119 R: Mm: hmm.
 120 C2: I think that's very attached to
 my development as: a
 musician. Also...=
 121 R: =As a pianist?
 122 C2: Yeah and-and musician more
 123 C2 & R: broadly
 124 C2: too because e::: (.) you know going to rehearsals and (0.3) talking with the:: e:: fellow students that play in the orchestra and so
 on...
 125 R: Yeah.
 126 C2: is u::h (.) also very important and...
 127 R: Yeah.
 128 C2: Yeah.
 129 R: So (0.3) tied to (.) tied to your full development.
 130 C2: Yeah.
 131 R: Yeah, that makes sense [R & C2 laughter] and u::m:: (.) u::h (.) the when you had these kind of u::h private lessons with Per
 Sigmund you just kind of organized them like u::m (.) like a::n hour long session with him when he was free, or did you go
 consistently for:: like a few weeks or:?
 132 C2: No (1.0) with Per Sigmund it has been quite a::: (2.0) well (0.5) sporadically.
 133 R: Mm: hmm.
 134 C2: Yeah. [Laughter]
 135 R: When he has time?
 136 C2: Yeah (.) and when I have time
 137 R: Yeah.
 138 C2: or when I have time to feel enough prepared to m:::=
 139 R: =to show something. [R & C2 laughter] Do you typically u::h (.) work on with him u::m (.) general movements or do you look
 specifically at a work (.) like a Stravinsky excerpt?
 140 C2: It has been e::: some lessons: going directly on repertoire, but mainly I feel that we've been working on basic technique
 141 R: Yeah.
 142 C2: because he has a very good method and=
 143 R: =Oh (.) okay.
 144 C2: and it goes:: very specifically into
 145 R: Yeah.=
 146 C2: =yeah (.) technique, but since it hasn't been so:: consistently e:::
 147 R: Mm: hmm, mm: hmm.
 148 C2: I don't feel that I::'ve really gone in (0.3) gone ya know (.) in depth with that with him
 149 R: Yeah.
 150 C2: the way I could have perhaps
 151 R: Mm: hmm.
 152 C2: if I decided to see him every week
 153 R: Yeah.
 154 C2: or so (0.3) but he was also my main teacher last year with that course (.) so then of course I had a lesson with him in the
 group every week.
 155 R: Oka:::y.
 156 C2: And then we also worked on technique
 157 R: Yeah.
 158 C2: together with everyone.
 159 R: O::kay (.) so like a group of you did the group course, where you were learning (0.3) the five of you or however many there are
 160 C2: Yeah (0.5) yeah (0.5) yeah.
 161 R: you do that, and then and then this is the second year of it (.) where you work with the ensembles?
 162 C2: No actually no::w I don't having any conducting lessons any longer
 163 R: O::ka:::y.

164 C2: because that subject (1.0) I finished that subject=
165 R: =Yeah.
166 C2: last year, and now (0.5) I've done it (.) so I can't take it one more time. [Laughter]
167 R: Yeah, yeah-yeah (0.5) even if you might want to? [R & C2 laughter]
168 C2: Even if I want to.
169 R: Oh (.) great (0.3) well it's good for me to get a picture of sort of (0.3) um: (.) the background of what you've been up to and how you've kind of ya know (.) u::m:: (.) been learning these things and which courses and things=
170 C2: =Yeah.
171 R: and that's great. U::m (.) in my field of musicology we talk about this notion of tracing a sound or u::m (0.5) some studies have been like (.) they ask people to draw (0.3) they hear (.) they play music (.) and they say draw::w to a sound.
172 C2: Mm: hmm.
173 R: And do you feel that your u::m (.) gestures or movements are done or performed with the intention of tracing or draw::wing the soundscape (1.0) at times?
174 C2: (4.0) I:: I think so:: (1.0) e::: sometimes=
175 R: =Yeah.
176 C2: not all the time (.) but u::h (1.0) e::: I know when I'm preparing something that I am going to conduct and (0.5) e::: discussing with myself how to:: how to:: conduct to:: to:: to:: e::: become or to have the playing that I want. [Giggle]
177 R: Yeah.
178 C2: I:: try to imagine how I want the phrase to played
179 R: Mm: hmm.
180 C2: a::nd I:: (1.0) I sort of have this: inner picture of
181 R: Mm: hmm.
182 C2: the sound or the (.) or the phrase (0.8) e:::::
183 R: Mm: hmm.
184 C2: (0.5) and then I try to find ways if it's going deeper (0.5) for example e::: (0.8) and then try to:: bake that into: the way I beat in for those two bars or something like that.
185 R: Mm: hmm (.) mm: hmm (0.3) yeah. So it's linked to sort of your: (.) sort of inner understanding of the: mu::sic and then the phrasing or the specific sound how you want that to come out?
186 C2: Yes.
187 R: Great, and what are so::me (0.3) something I've really struggled with this question is (.) u::m (0.5) some gestures (.) why are some gestures that we do: (.) goo::d or: like (.) well suited for a wi::de n:umber of sounds? Where perhaps other gestures maybe (.) we only feel are good for like this one idea that we ha::d=
188 C2: =Yeah.
189 R: ya know. It's just something I always wonder about (2.0) it's a tough one.
190 C2: Yeah.
191 R: What I guess (.) what I mean is (0.3) ya know if you have like u::m (1.0) this little bass drum hit ya know, ba da da, ba da da, ba da da, boo::m. [Sings tune]
192 C2: Yeah.
193 R: And we might do like ga::: (.) ya know. [Demonstrates a gesture for a spoken one note rhythm]
194 C2: Mm: mm::.
195 R: U::m::: then in other pieces we get this large maybe (0.5) big moment (0.3) maybe it's not a bass drum anymore (.) but it's a different sound perhaps, but we do the same thing. We go here and we go low and we do almost exactly the same ge:sture. [Demonstrates gestures that coincide with described movement]
196 C2: Mm: hmm.
197 R: And u::m: (.) I just wonder about (.) u::m (2.0) yeah (0.5) I just wonder about why that is? Because we reuse a lot of our little cues let's say or little gestures
198 C2: that we apply them to very different musica::l=
199 R: =Sounds.
200 C2: Yeah?
201 R: Yeah.
202 C2: (2.0) Yeah (.) and you're asking why we are doing that or:::?=
203 R: =Or I-I wonder about what your thoughts are.
204 C2: If that's working or:::..
205 R: Yeah-yeah, what do think (.) do you think (.) what do think why we do and then maybe if it (.) if it (0.3) does it work?
206 C2: Yeah (4.0) I think e::: especially u:: our sort of conductors that-that have been in the study who are
207 R: Yeah (.) yeah.
208 C2: still young and inexperienced
209 R: Right-right.
210 C2: e::: n::: often end up e:::m (1.0) havi:ng sort of same repertoire of e::: things that we (0.5) do and e::: even though we have different musical I.D.s
211 R: Mm: hmm.

212 C2: for different places in the music=
213 R: =Yeah.
214 C2: e::: we don't always know how to get it out.
215 R: Oh (.) yeah.
216 C2: So it turns into yeah (0.3) its:: should be l::quite loud and u::h
217 R: Yeah (.) yeah. [C2 & R laughter] Just being kind of young and not u::m::
(.) perhaps knowing how to the move...what movement to perhaps attach
to it and-and just now s::ure like maybe u::m (.) that experience might
bring you a wider number of things to do in your movement (0.5) maybe?

218 C2: Yeah (1.0) yeah and also an o::verview o::ver:
219 R: Mm:::.
220 C2: e::: (1.5) what is needed
221 R: Mm:::.
222 C2: e::: and what is: important at every time e::: in the performers or in the rehearsal=
223 R: =Yeah.
224 C2: because you (0.5) u::h (.) the experienced conductor will respond all the time to what it's hearing and focusing e:: further
forward in the music
225 R: Mm: hmm.
226 C2: if he knows that that's the most important or:: going in and helping where he knows that-that is:::
227 R: Needs it. [Laughter]=
228 C2: =needed to make it work. E::: and you know (.) focusing on one thing at a ti:me in the rehearsal to::: you know (.) get placed those
accents for instance and then when you've done that, you might focus on other voices that are perhaps (0.3) e::: out of time or:::=
229 R: =Mm: hmm (.) mm: hmm.
230 C2: e::: and (1.0) I think this experienced conductor then (.) will vary more of the way they're conducting.
231 R: Mm:: (0.8) based on the situation?=
232 C2: =Yeah (0.3) because they are listening and u::h (.) responding very spontaneously
233 R: Mm: hmm.
234 C2: to make it work in the moment
235 R: Mm: hmm.
236 C2: a::nd (.) but u::h (0.3) now I feel that I'm going away from your question.
237 R: No, no I like this [C2 laughter] because you're going to one
of my other questions. [R & C2 laughter]
238 C2: Okay.
239 R: Which was (0.3) u::m:: (.) I guess u::h yeah (.) that was:: (.) well we'll come back to that idea (.) spontaneity
240 C2: Yeah (.) yea:h.
241 R: because u::h (.) to me that's rea:lly key and I think you're pointing out a really great thing that
242 C2: Yea:h.
243 R: yes u::m (.) the experienced conductors can:: (0.3) they are listening and evaluating all the time and they sort of kno::w what to
change and when to change in the movement (.) with where they are and what they want to do and have happen and what they ar::e
trying to get out (0.3) that's exactly (.) u::m:::
244 C2: But (1.0) yeah.
245 R: Yeah.
246 C2: I think going back to the first question that
247 R: Yeah-yeah.
248 C2: we were supposed to
249 R: Yeah. [Laughter]
250 C2: be talking about.
251 R: That's okay.
252 C2: E::: I think that u::m (1.5) it's really not that grea:t e::: an amount of movements
253 R: Mm::.
254 C2: that we::: we don't have such a great palette
255 R: Mm: hmm.
256 C2: e::: if you:-if you consider the movements themselves (0.5) isolated
257 R: Mm: hmm (.) Mm: hmm.
258 C2: e::: as various e::: a palette of the musical expressions and all of the things that we find in the music
259 R: Mm::.
260 C2: so when we want to bring out those musical things e::: from the musicians e::: we (1.0) c..can't necessarily find one gesture that
is specifically only e::: very exactly on what we want e::: and not e::: possible to misunderstand and so on
261 R: Mm: hmm.=
262 C2: =but it is: more complex, it's: sort of how you::: e:::m (.) it's not only about the movement at that time
263 R: Mm: hmm.

264 C2: but it's the energy you::-you:: show and e::: (2.0) and the musical context that you:: create.

265 R: Mm: hmm (.) mm: hmm.

266 C2: And then I think musicians are also (0.3) musicians so they also fee::l that e::: e:::m (.) yeah (.) forming of the music and in the context (.) they will probably out of their experience and taste

267 R: Mm: hmm.

268 C2: e::: interpret a::: a movement that should (0.5) make it ya know (.) suitable

269 R: Mm: hmm.

270 C2: or more accurate let's say.

271 R: Mm: hmm (0.3) yeah (.) oh yeah.

272 C2: I hope so anyway.

273 R: Yeah (.) me to::: [R & C2 laughter] Yeah (.) that's good that's a::h (.) that's what it (.) the goal of what it's about I think. [R chuckle]

274 C2: Yeah.

275 R: U::m: (.) what are some properties or elements of sound that change frequently in music and require perhaps an action to help encourage the players? So what is it in s::..what is it in the sounds that change a lot and that dri:::ve us as conductors to show a movement of some kind? So (.) it's kind of a broad question but...

276 C2: Yeah, but, u:::m (.) I think about e::: I think immediately about changes (0.5) in music

277 R: Mm:: (1.0) mm: hmm.

278 C2: where (1.0) e:::m (.) the conductor has to go in and set a new character=

279 R: =Mm: hmm.

280 C2: set a new tempo if there's (1.0) e::: yeah (.) if you suddenly have e::: marcato and articulated e:::

281 R: Mm: hmm.

282 C2: very rhythmic things

283 R: Mm: hmm.

284 C2: e::: that is contrasting to what has been played before

285 R: Mm: hmm.

286 C2: you need to place those from the beginning

287 R: Mm: hmm.

288 C2: and sort of get it all in place before it's started and then that's working.

289 R: Mm: hmm (.) yeah. So: new tempos (.) new articulations.

290 C2: Yeah (.) new characters.

291 R: New characters like u::m (.) character as in u:::m (.) u::h (.) like a mood (0.3) or a volume level? Or:::...

292 C2: No, I mean character as a mood (0.5) atmosphere.

293 R: Atmosphere (.) yeah. Mm: hmm (0.3) which I suppose is sometimes ti:ed to tempos and articulations and...

294 C2: Yeah

295 R: Yeah.

296 C2: absolutely.

297 R: Yeah, or other things too. [Laughter]

298 C2: Yeah (0.3) and of course dynamics (.) phrasings

299 R: Yeah.

300 C2: well at least phrasings.

301 R: Yeah, yeah. I know it's u::m (.) a lot of the conductors this week have said this idea of character of the music which (1.0) I often wonder what is like (1.0) what are the components of this character, this isn't a question from my interview sheet but

302 C2: No:?

303 R: but it's just something I've thought of because I think I get it (0.3) what everyone means by the character of the music (0.3) but if you had to defi::ne the little components I wonder...=

304 C2: =what the character is or what?

305 R: Yeah or what sha::pes it? Yeah or what gives what-what makes (.) what influences this character right? Because if we step back and say well the character of the music is this, but (0.5) what ma::de us think it was that (.) ya know?

306 C2: That's a big question (1.0) because that's more

307 R: Mm: hmm. I don't have the answer but...

308 C2: that's more going into what music (0.5) can be

309 R: Yeah.

310 C2: what music is. Or:::...

311 R: Yeah I know who said (.) I forget who said, "mu::sic is what happens between the notes" you know.=

312 C2: =Yeah.

313 R: Saying like it's the expression and the affect

314 C2: Yeah (2.5) yeah (1.0) yeah.

315 R: and the beauty and things like that=

316 C2: =Yeah.
 317 R: the aesthetics.
 318 C2: Yeah (.) it has to do with the musical I::D.
 319 R: Mm: hmm (.) mm: hmm.
 320 C2: I think (1.0) e: or e:: the:: u::m (.) e::h (.) how do you say it (1.0) intuition?
 321 R: Mm: hmm, mm: hmm.
 322 C2: And u::h (1.0) the message perhaps.
 323 R: Mm: hmm (0.3) mm: hmm (2.0) that's very good.
 324 C2: Hea::::. [Audible exhale and laughter]
 325 R: Do you think (0.3) do you think some of our emblems:: (.) I:: call them emblems
 326 C2: Yeah.
 327 R: but (0.5) little (0.3) these little gestures that you know and you use (0.5) are strongly linked or are hard wired to particular sound moments? Like if you hear the ba da da, ba da da, ba da da (0.5) boom [sings tune]
 328 C2: Yeah?
 329 R: u::m (.) if you heard that again in another march, like I made you guys conduct marches this week
 330 C2: Yeah.=
 331 R: =but or last week, but (0.8) and you heard another sort of passage that was very similar ya know (.) something
 332 C2: Yeah.
 333 R: it might not be ba da da, ba da da, ba da da (0.5) boom [sings tune] but it might be like ju ba da ba yub, yub ba da ba yub, yep, boo::m or something=
 334 C2: =Yeah.
 335 R: ya know, would you::: (2.0) do you think that the gesture you would do might be simila::r to the one that you did in the marches with me::?
 336 C2: (2.5) E::::
 337 R: I'm trying to:::=
 338 C2: =Yes:: (.) I think they would be quite similar at least=
 339 R: =Yeah?
 340 C2: because e:::: (2.5) e:::especially since you::: e:m e:::: sort of isolated us like to marches because (0.5) e::: most marches are e:::: are-are within a frame of u:::h (1.0) you know the rhythmical affirmation even though they are different from each other e:::: they often e:: have some of the e:m same characters.
 341 R: Yeah. [C2 & R laughter] That's right and u::m (1.0) yeah I was trying to figure out cognitively in our brains (.) and I don't have the answer to this (0.3) but part of me believes that (.) as only my own personal belief is that (0.5) some of these sort of characters in the music are hard wi::red into the movements that we do.
 342 C2: Yeah.
 343 R: Cuz this is sorta like we...we have this like movement toolbox that we:: (0.5) ya know (.) instead of a wrench we take out a hammer (0.3) but in this instance when we hear that (0.5) we want to go to this movement because
 344 C2: Yeah.
 345 R: it's sort of hard wired into us, and there are of course other appropriate movements to do those with=
 346 C2: =Mm::.
 347 R: you could do something totally different to-to get
 348 C2: Mm:.....
 349 R: that out, but I just wonder if some of us have these like really: stro:ng links that (0.3) of our movement linking to those sounds::.
 350 C2: Yeah.
 351 R: Yeah (.) and even if we had to con... let's say conduct u::m (0.3) u::m:: (.) a Mahler piece with the orchestra and we get something that's s::imilar I wonder what we would do (0.5) in the moment ya know (1.0) if it's the same or different but (0.5) I guess it depends on the situation [giggle] but...
 352 C2: But e:::: that last question:: I didn't quite understand but-but e:::: what you were saying first about u:::h
 353 R: I guess..
 354 C2: that they feel so natura:l because of the character
 355 R: Mm: hmm.
 356 C2: I think (0.5) e::m (2.0) well if you, if you ask not conductor
 357 R: Mm: hmm.
 358 C2: e::: or not musician, whatever
 359 R: Mm: hmm::.
 360 C2: it doesn't u: even have to be somebody who is: playing in an amateur band (.) just
 361 R: Mm: hmm (1.5) yeah.=
 362 C2: =anyone from the street

363 R: Mm: hmm (0.3) yeah.
 364 C2: e::: if they know a musical piece=
 365 R: =Mm: hmm.
 366 C2: a march
 367 R: Mm: hmm.
 368 C2: they and were told to conduct=
 369 R: =Mm: hmm.
 370 C2: and e::: were not distracted by enjoying themselves to the:: too much movements e::: (.) e:::
 371 R: [2.5 seconds of laughter] Mm::.
 372 C2: they would also per.. e:: be::: ya know (.) e:::
 373 R: Yeah, inclined to
 374 C2: yeah.
 375 R: do that.
 376 C2: Some of those very:: e::: ba:sic uh (.) sort of primitive e:::
 377 R: Mm: hmm (2.0) mm: hmm.
 378 C2: and u::h (0.3) an..un::miserstandable gestures that (1.0) yeah, they are just (1.0) e:::m (2.0) ways of expressing (1.0) something that everybody understands and that rump, rump, rump [spoken rhythm] a:::-and going with the fist like that [shows movement] is::
 379 R: Mm: hmm, mm: hmm.
 380 C2: is natural everybody does it from time to time and you know what that=
 381 R: =means.
 382 C2: Yeah. [Laughter]
 383 R: Yeah (.) yeah because you probably wouldn't see the punch way up he:re. [Demonstrates gesture just above eye level]
 384 C2: No.
 385 R: I've always seen it down lo:w, ya know (.) but...
 386 C2: Yeah.
 387 R: And in saying that (.) do you u::m:: (.) in creating these types of me..unmisunderstandable gestures ya know=
 388 C2: =Yeah.
 389 R: do you belie::..do you think about them occur:ing (.) like your movements occurring in as having these three dimensions: (0.3) the-the x, which I call the back or the front (.) the y, which is the right and the left, and then the z, the up and the down? I guess (0.5) in our movements we get the joy of being able to do them in the three dimensional space
 390 C2: Yeah.
 391 R: and maybe not in the m::ovem.. in the moment you might not be thinking about
 392 C2: No.=
 393 R: =where you are giving things, but as a conductor do you (.) do you acknowledge that this is like (0.5) you have so: much space to work with?
 394 C2: Yes, I think e:::m (.) being aware of that (0.5) space or spare you have (0.3) e::: ca:n help you to express: e:::m (2.0) yeah certain e::: expressions e::: that you seek and uh (.) u:::m (1.5) and that is also perhaps e:::m related to (1.0) to that e: for example snea::king gestures or things that are unclear, and
 395 R: Mm:::.
 396 C2: and transparent.
 397 R: Mm: hmm (.) mm: hmm (0.3) maybe u::m (.) well I'll give you a few examples
 398 C2: Yeah.
 399 R: and then you tell me maybe one or two ways that you could show me or tell me=
 400 C2: =Okay.
 401 R: like uh (.) in your gesture
 402 C2: Okay.=
 403 R: =or you could talk to me about what you might do. If the sound moment is rising in pitch u:::m (.) meaning like a little glide of a note like do:::a:: bop [sung ascending pitch glide] or something=
 404 C2: =Yeah.
 405 R: or u:::m (.) what might you maybe do? And perhaps it's also like crescendoing at the same time, what kind of actions come out naturally?
 406 C2: I would think upwards movement.=
 407 R: =Mm: hmm (.) mm: hmm (0.3) and then u:::m (.) yeah (.) if there was a diminuendo there thou:gh (0.5) then what would we wanna do?
 408 C2: I would u::h (.) e:::m (.) perhaps still going upwards (.) but sort of (0.5) lo..losing or::: losing
 409 R: Mm:::.
 410 C2: the energy at the end.
 411 R: O:::h.=
 412 C2: =Ya know then you're (0.3) I actually remember having done that to a flute sometime she had like wooo::: [Sung ascending note]
 413 R: Yeah (.) uh huh.
 414 C2: I wanted her to ya know (2.0) phrasing off, or just

415 R: Just let it go (2.0) mm:::..

416 C2: letting it disappear. [Giggle]

417 R: Mm: hmm. So it comes in the change of the speed of the arm or (2.0) or just kind of freeing it up a bit?

418 C2: Just yeah (0.3) very free just e::: not conducting like

419 R: Yeah.

420 C2: just e::: just like (.) yeah

421 R: Throwing it away.

422 C2: yeah or letting it just (2.0) pass

423 R: Pass.

424 C2: in some way (0.3) yeah.

425 R: Yeah, mm::: that's really neat, and if the sound... obvi::: maybe the reverse of this which maybe the opposite answer or maybe not, but if the sound moment is falling in pitch or perhaps the notes are descending down like u::m (.) dee: di di di do do du du do::me [sung descending scale] or something what kind of actions might come out?

426 C2: (2.0) I would follow down.

427 R: Mm: follow down.

428 C2: Yeah (.) if it's going=

429 R: =down.

430 C2: Yeah, a...and if you want the emphasis on (0.5) the

431 R: The last note.

432 C2: last note=

433 R: A::h.

434 C2: I would go down.

435 R: Mm: hmm, if it was especia... if it was crescendoing as well

436 C2: Yeah.

437 R: kind of down like?=[Demonstrates the idea]

438 C2: =Yeah.

439 R: Yeah (1.0) mm: hmm (2.0) is the u::m (.) let's say (1.0) if the sound moment is (0.3) in my study we did that little dab gesture which is kind of light and sudden or quick like u::m (.) the ba da du, ba da deet.

440 C2: Yeah.

441 R: Those ones u::m (.) what kind of things do you think about in those little moments (0.5) doing (.) like?

442 C2: E::: I think the staffs are e::: you're doing them because you want things to be very light=

443 R: =Mm: hmm.

444 C2: e::: precise but very light

445 R: Mm: hmm.

446 C2: most of all.

447 R: Mm: hmm (0.3) and u::m (.) do you feel like you normally (0.5) what part of the space do you normally put them in (0.3) or it depends on maybe the orchestration who has them?

448 C2: (2.0) Yes::, but I feel that it is e::: wind gesture.

449 R: Instruments (.) a wind instrument gesture?

450 C2: Yeah (.) yeah.

451 R: Mm: hmm (0.3) and I always wonder like a lot of times I feel for me anyway (.) I'm always doing them in the upper plane=

452 C2: =Yeah.

453 R: because it's usually u::h (.) these guys here (.) and like ya know right here [outlines movement areas physically] and then um: (.) but I:::yeah (.) I don't typically find myself going down lower for it

454 C2: No?

455 R: (2.0) in the frame of the space that we work in, but u::h (.) now a different one all together. If the sound moment is sort of strong and sudden like this bass drum or::: strong and sudden (.) but a different timbre like a cymbal crash ya know (.) cshhhh [makes sound and claps]

456 C2: Mm: mm, mm: mm.

457 R: mm: u::m (.) are those happening in different places in space for you in your movements, like a bass drum hit versus a cymbal crash?

458 C2: (2.0) U::h (2.0) e::: givi::ng impulse to the bass drum I would definitely e::: have a deep and quite ye:::ah if it's, if it's loud and it's normally loud. [Laughter]

459 R: Yeah (.) good point. [C2 & R jovial laughter]

460 C2: E::: [R giggle] I would start low and ya know (.) not only (0.5) starting from low, but really going deep in

461 R: And digging into it?

462 C2: boom. [Demonstrates gesture with sound]

463 R: O::h (0.3) yeah.

464 C2: E::: to give that firm=

465 R: =Mm: hmm, mm: hmm.
 466 C2: E::: (.) but I think I would be also quite low to the cymbals=
 467 R: =Yeah.
 468 C2: e::: or it de..depends
 469 R: Yeah, on the situation.
 470 C2: if this major e::: high point
 471 R: Mm hmm, mm hmm.
 472 C2: e:::: from a a::::h, a::::h woosh [sung operatic swoop]
 473 R: Yeah-yeah (.) yeah-yeah (.)
 it might be:: different.=
 474 C2: =then perhaps it's not so e::m vertical if you know what I mean, but u:::h (.) anyway (0.5) I just think that the percussion players (0.5) would like to have a quite e::: quite precise beat from the conductor because they're so far behind too and the sound is e::: is coming back to them e::: a bit later
 475 R: Mm: hmm (.) mm: hmm.
 476 C2: and they're often having problems about placing themselves correctly.
 477 C2& R: Mm: hmm.
 478 R: Yeah.
 479 C2: So e::: (1.5) e::: and then I-I think that it's more clear
 480 R: Mm: hmm.
 481 C2: because u:::h (.) if you:::you need to know where you are starting the beat before
 482 R: Mm: hmm.
 483 C2: so that they can place it.
 484 R: Mm: hmm, yeah good point. If you don't show the beat before properly then how-how are they going to place the moment properly?
 485 C2: Yeah.=
 486 R: =Yeah.
 487 C2: Yeah, because they u::m (.) have to feel the:::..=
 488 R: =The energy before.
 489 C2: Yeah, because they have to start the movement before.
 490 R: Right!
 491 C2: It's there. [Laughter]
 492 R: No (.) that's a really good point.
 493 C2: Yeah.
 494 R: Yeah because I did this really funny gesture in this very soft piece where I had this little um (.) triangle ring ya know this
 495 C2: Yeah.=
 496 R: =little bing [sung note] like in this new piece and all I did was I went [demonstrates opening of two fingers without any preparatory gesture and R & C2 giggle] and the percussionist was like, "I::: need more help than that." [R & C2 laughter] And he's honest which we're good friends so that's fine and I said, "oh, okay so you mean you want?" [Demonstrates the gesture with a preparatory gesture attached] ya know and he said, "yeah (.) that helps me to know when to play, this is cool [demonstrates opening of fingers] but I don't know when this is going to happen (.) ya know."
 497 C2: Yeah.
 498 R: And ya know, I thought this was like (.) the best gesture in the world (.) cuz I didn't want to give very much because it's just a triangle bing and I just went [demonstrates the opening of two fingers again] ya know.
 499 C2: Yeah.
 500 R: I thought it was one of my best gestures ever and he's like, "No no no you need to (.) ya know (.) give me a little more so I can be precise."
 501 C2: Yeah, yeah.
 502 R: I think that's a really well put point for percussionists especially. [Chuckle] And u:m: (.) do you think about these moments that these little emblems (.) however big or small they are=
 503 C2: =Yeah.
 504 R: do you think about them as having a sort of shape (1.0) to them? I guess I was thinking about shape like (.) obviously in conducting we perhaps might use circles to get our point across or um: (.) every once in awhile we might do like (.) a little triangle and those are like actual shapes that we're drawing
 505 C2: Yeah (1.0) yeah.
 506 R: but do you think about your gestures as having shapes to them?
 507 C2: (2.0) As having shapes to them?
 508 R: Or having-having a certain element of shape?
 509 C2: (2.0) E:::m:..
 510 R: I guess a certain element of a three-dimensional quality (.) I guess.
 511 C2: Yeah.
 512 R: Yeah.

513 C2: E::m (2.0) yes, but I think e::: (2.0) well the answer should definitely be yes (1.0) because
 514 R: [R & C2 laughter] No that's true (.) but I am very curious to see what you think about it=
 515 C2: =Yeah.
 516 R: because it's something I toil with a lot.
 517 C2: Yeah (.) I::: just haven't fo:cused o:n (0.5) or thought about the shape
 518 R: In that way?
 519 C2: thing as a thing of its own.
 520 R: Yeah.
 521 C2: E::: and that's why I'm stuttering. [Laughter]
 522 R: No don't-don't stutter we'll keep going and then you might come back to a thought that links that.
 523 C2: Yea::h, but just let me think for two seconds because u:::h (1.0) the musicians are watching you
 524 R: Mm: hmm.
 525 C2: e:::m: and they're sitting in different angles
 526 R: Yeah.
 527 C2: and uh (.) distances from the conductor.
 528 R: Mm: hmm.
 529 C2: E:::..
 530 R: And especially in the orchestra there's a lot of::: (.) you know
 531 C2: Yea:::h.
 532 R: everywhere.
 533 C2: And we're supposed to be:: free with our arms=
 534 R: =Mm: hmm.
 535 C2: and of course in the situation we shouldn't n::: have to think about everything we do with our arms: (0.5) but u:::h
 536 R: Mm: hmm (0.5) Mm: hmm.
 537 C2: but it's very natural that we use the space and that can help match as a::: if you, if you come forward and use the space it's also easier (.) think about the s:tring players that need
 538 R: Mm:::..
 539 C2: space for the bowing and
 540 R: Mm: hmm.
 541 C2: e::: it can that way impact the sound
 542 R: Mm: hmm.
 543 C2: ya know (.) because if you are tight they-they will fall back or
 544 R: O:::h (0.3) yea:h.
 545 C2: or perhaps even get tense.
 546 R: Yea::h (.) oh (.) that's a really (0.5) yeah. U::m: (.) in my work I talk about salience, and salience (0.5) by that I mean these major sound moments or major gesture moments that stand out because of what was before and what came after
 547 C2: Okay.
 548 R: which is often different.
 549 C2: Yeah.
 550 R: So (0.5) how..do you feel that conductors use salience to their (0.3) in their movements to their advantage?
 551 C2: Yeah.
 552 R: Yeah, me too. [C2 & R laughter] Um::, also um::: we were talking about spontaneity do you feel that in your own movements and it could be both,
 553 C2: Yeah.
 554 R: Yeah, um::: (.) that you u::m (.) that they're sponta:neous and occur in the moment or that u::m::: there are times when you're conducting along and you think ahead to the sound moment and sort of preplan your actions:: (0.3) maybe a few bars ahead?
 555 C2: Yeah I::: (0.5) well at the stage where I am now as a conducting student (.) I-I li:::ke to plan my gestures
 556 R: Yea:h (1.0) yeah.
 557 C2: e::: if not necessarily at every beat u:::h (.) by::: the whole piece
 558 R: Mm: hmm (.) mm: hmm.
 559 C2: at-at major places (.) and places that I::: feel especially for.
 560 R: Mm: hmm.
 561 C2: E::: so:: e:::..
 562 R: Before conducting or you mean?
 563 C2: Before conducting.
 564 R: Yeah (.) befor::e beginning.
 565 C2: Yeah because I think about the I::D I have=
 566 R: =Mm: hmm.
 567 C2: the musical I::D and

568 R: Mm: hmm.

569 C2: e:: (.) what I want to (0.5) have out of the ensemble

570 R: Mm: hmm, mm: hmm.

571 C2: and u::h (.) then I: try:: to find a way to:: n:: to show it through my conducting.

572 R: Mm: hmm (1.0) mm:
hmm.=

573 C2: =And I-I have to plan becaus::e

574 R: Mm: hmm.

575 C2: I don't, I don't have experience to get it out on the first (0.5) e:: try

576 R: Mm: hmm, mm: hmm.

577 C2: I:: but I imagine and often find e: inner picture of what would be nice to do=

578 R: =Yeah.

579 C2: and what would work very good u::h

580 R: Mm: hmm, mm: hmm.

581 C2: or (1.0) e:::: but I have to:: e::m (0.5) practice it a bit=

582 R: =Mm: hmm.

583 C2: e:::: also the gestures=

584 R: =Yeah.

585 C2: to:: to make it come very easily and without effort because I have to have e:: energy to:: to listen and=

586 R: =Yeah, yeah good point.

587 C2: Yeah, I have to think about my moves too much.

588 R: Yeah, you don't want to be too focused on your own gesture because you

589 C2: Yea::h (0.5) yea::h (0.3) yea::h.=

590 R: =want to be listening and responding and

591 C2: Yeah.

592 R: and then maybe changing if it didn't work.

593 C2: Yeah.

594 R: Mm: hmm.

595 C2: And also being as u::h in the mind I also should be i::n: the musical e::

596 R: Uh huh.

597 C2: li:ne and uh the-the form of the larger work

598 R: Mm:
hmm.=

599 C2: =and not at every moment.

600 R: Mm: hmm.

601 C2: E:: I can't be too local if ya know (.) in my

602 R: Yea::h (2.0) yeah.

603 C2: focus because e:: yeah now I have to go

604 R: ou::t to make that happening to the ba da deet bits [laughter]
Yeah (.) yeah (.) yeah. [Jovial laughter] Yeah,
that' so true.

605 C2: but then I-I have to also being on that level
of e:: the larger lines (2.0) sometimes. [Laughter]

606 R: Mm: hmm yeah (.) that's so:
true eh?

607 C2: Yeah.

608 R: That's so: true. U::m (.) okay great we'll talk u::m (.) really briefly about your thoughts on the three parts of the accuracy tests, u::m::
the u::h (0.5) I'll just talk about each part. [Clears throat] In the Part One (.) you had to listen to three little audio samples and see a
gesture or:: watch a gesture and hear three little audio samples and select the sound that best fit the gesture. In that part (.) which one
did you u::m (.) think was easier or prefer, did you like hearing the sounds fi:rst and then seeing the gesture (.) or seeing the gesture
and then trying to get the right sound?

609 C2: E::m (2.0) I had a very clear e:: opinion on this when we were doing the accuracy tests

610 R: Yea::h?

611 C2: but now I'm getting insecure of what I::=

612 R: =No:: it's okay.

613 C2: because this was ver::... I really=

614 R: =We can talk about the other one

615 C2: preferr::ed one thi:ng

616 R: too. In Part Two it was a little different (.) you had th..three little movements and then a sound or
one sound and then three movements.

617 C2: Yeah, that's: very easy the last one. [Soft giggle]

618 R: That one you preferred the sound first
 619 C2: Yea:h.
 620 R: and then matched the gesture?
 621 C2: Yeah, because I forg.. e::: I:: I can (.) I can see: quite clearly what the conductor is doing
 622 R: Mm: hmm.
 623 C2: and imagine (0.5) perhaps even what music it is but=
 624 R: =Mm: hmm.
 625 C2: but then I forget the gestures or what I've seen before, I forget them but e::: the music (0.5) if I had one musical example it's very easy to (1.0) to remember.
 626 R: Mm: hmm (1.0) mm: hmm, and then link it to:....
 627 C2: Yeah.
 628 R: Yeah.
 629 C2: Because that I won't forget even if I see=
 630 R: =Mm: hmm (1.0) mm: hmm.
 631 C2: mo::re video clips after.
 632 R: Mm: hmm, and then (.) Part Three (.) we had to sort of (0.3) see them (0.3) ya know (.) them together [giggle]
 633 C2: Yeah.
 634 R: and then you had to select the audio gesture that best, it made the most sort of auditory and visual sense, what did you think about that?
 635 C2: (3.0) E::: it was:: (2.0) well I was nearly surprised that (0.5) I actually sometimes: found that difficult
 636 R: Mm: hmm (.) mm:.
 637 C2: because it should be easy.=
 638 R: =Yeah (1.0) yeah or more obvious right?
 639 C2: E::: (1.0) and (0.5) sometimes it was easy but
 640 R: Yeah (1.0) yeah.
 641 C2: eee::m eee::h and I think you tried to confuse us: too with [R laughter] with u::h ya know u::h (.) putting the music and the conductor a bit e::: (0.5) in front of each other.
 642 R: Mm: hmm, yeah slightly off set.
 643 C2: Yeah, yeah.
 644 R: Yeah. [Laughter]
 645 C2: A:::and sometimes the:: I-I remember I e::: sometimes chose e::: those combinations where (0.5) the actual music was: ac..actually longer
 646 R: Mm:::=
 647 C2: =than the conducting=
 648 R: =Mm: hmm, mm: hmm.
 649 C2: e::: but I felt that
 650 R: was the best match.
 651 C2: Yeah.=
 652 R: =Mm::: No that's good that's very valid.
 653 C2: Yeah. [C2 & R laughter]
 654 R: Great and then we're almost u::h wrapping up here [laughter] um:: u::h (.) do you feel like coming into the motion capture la::b and then (0.5) and participating in the study has changed u::m: and I guess (.) a::h yourself and Conductor One had the:: learning session too=
 655 C2: =Yeah.
 656 R: where you had the dance performance and then looking
 657 C2: Yea::h.
 658 R: at the gestures and then judging them a bit mo:re.
 659 C2: Yeah.
 660 R: U::m: (.) and do you feel like that experience of having the:: the dance, I guess I'm trying to get at two things (.) did you feel that the dance performance working with her even on a few exercises was helpful? And then also (.) did you feel that looking at those gestures and judging them was helpful
 661 C2: Yea::h.
 662 R: to how you think about sound and how you think about gesture?
 663 C2: Yeah, I liked both of them
 664 R: Mm::
 665 C2: those things (1.0) very much.
 666 R: Mm:: (1.0) mm: hmm.
 667 C2: E::: (2.0) the session with the::: the danc::e woman [soft giggle]
 668 R: Mm: hmm (.) mm: hmm. [Giggle]

669 C2: was e::m (2.0) it was good=

670 R: =Mm:.

671 C2: and it e:: I (0.5) actually feel that it helps with e::: to:: what I need as a conductor very directly

672 R: Mm: hmm (.) mm:.

673 C2: or as e::m (.) it gives you a::: a good starting point. =

674 R: =Mm:.

675 C2: So a...and u::h (0.5) technical issues that you might have when you are conducting (0.5) e::m those problems can be smaller=

676 R: =Mm:.

677 C2: if you're actually starting from: a very good e::m position where you're comfortable and

678 R: Mm: hmm.

679 C2: and u::h (0.5) calm and (0.3) everything

680 R: Mm: hmm (0.5) mm: hmm (.) this is her::

681 C2: because you're-you're able to focus better=

682 R: =Yeah, the focus thing

683 C2: too (1.0) yeah.

684 R: Mm: hmm the body (.) mind (.) flow idea

685 C2: Yeah.

686 R: and the focus?

687 C2: Yeah (.) mm:.

688 R: It's you're the:re.

689 C2: Yeah.

690 R: Yeah. It's interesting I heard um (0.5) another conductor ask me about his presence, "how's my presence?"=

691 C2: =Okay.

692 R: and I really didn't know how to answer it.=

693 C2: =No?

694 R: Because I wasn't sure what he meant at the time.

695 C2: Yeah.

696 R: Now I think I kinda get it, I think

697 C2: Yeah

698 R: he meant this sort of focus and body (.) mind (.) flow with the musicians and his movements and

699 C2: Yeah.=

700 R: =being present maybe with his e::yes and=

701 C2: =Yeah.

702 R: and everything but, I wonder if it was connected to that? And u::m: (0.5) had you ever conducted any of those four marches before? Or::...

703 C2: No.

704 R: or heard of them?

705 C2: E:: not really.

706 R: Great! Well that was the whole point I was hoping yeah (.) that no

707 C2: [Laughter]

708 R: one would because then you're all on sort of equal playing ground.

709 C2: Yeah.

710 R: Yeah, that's great and u::m (0.5) and if I were to come back to Oslo in a few years: u::m (.) and do a similar study=

711 C2: =Yeah.

712 R: have e:: with the same level of conductors would you encourage them to be involved?

713 C2: (2.0) Yes I::

714 R: If they have the time I suppose.

715 C2: I actually would because e::: (2.0) I think it's:: s:uch a great help to-to see::: you conduct when you're:: we looked like that e:::

716 R: Yeah.

717 C2: thin man.=

718 R: =Yeah skeleton guy. [Laughter]

719 C2: E::: (1.0) yeah. [C2 & R laughter]

720 R: Yeah.

721 C2: And u::h that was also what was very interesting when we wer:::e judging the clips

722 R: Mm: hmm, yeah.

723 C2: e::: because we saw things: being done very differently but it was: al-always the skeleton man=

724 R: =Yeah.

725 C2: so it's much easier to be neutral (1.0) e:::

726 R: Mm::: (.) mm::: (.) mm: hmm.
727 C2: and you can also s:: actually see:: there e::: things:: like ya know raising your shoulders
728 R: Mm hmm.
729 C2: and u::h (.) or e::: moving your head a bit too much
730 R: Mm: hmm.
731 C2: e::: perhaps moving the body even a:::nd
732 R: Mm: hmm, mm: hmm bad habits and
733 C2: Yeah.
734 R: Yeah.
735 C2: and that's very normal of course but it's: interesting to see it on him=
736 R: =Uh huh.
737 C2: because then you notice it in another way then when you're looking at..at a person who might even look quite calm while conducting
738 R: Mm:::..
739 C2: but when you see the skeleton you see: that=
740 R: =There's not.
741 C2: these are moving while conducting.
742 R: Mm: hmm (.) mm: hmm and it's not calm and perhaps it's tense or something
743 C2: Yeah, yeah.
744 R: where you might not observe right away just with the video clip or something.=
745 C2: =Yeah, I was actually surprised that (1.0) so much: expression could be seen in
746 R: Mm::: (1.0) yes.
747 C2: the clips because (1.0) I thought okay (.) a:::h (.) we'll see all the movements we'll of course see: (0.5) e::: the speed of the movements too
748 R: Mm: hmm (.) mm: hmm.=
749 C2: =but e::: there's:: so much that won't be there e::: the look
750 R: Mm: hmm like the face and the eyes and..
751 C2: Yeah, yeah the look won't be there but and also (0.5) I think that (0.5) some of the:: e..energy that we perceive=
752 R: =Mm: hmm.
753 C2: e::: isn't e::: something you can measure=
754 R: =Mm: hmm.
755 C2: at least (0.5) at least not in that way because then you o..only see the movements and the energy is: something that happens between you and the musicians in the room
756 R: Ri::ght (1.5) yeah.
757 C2: right there, e::: but (.) when I s:aw some of the clips I: (1.0) I especially those who were (0.5) there were a few quite good=
758 R: =Mm: hmm (.) mm: hmm.
759 C2: and then I sa::w that wow it's:: actually possible (0.5) to get it through.
760 R: To have the energy there? Oh, to get the energy through?=
761 C2: =Yeah.
762 R: And some expression?
763 C2: Ye..Yeah.
764 R: And intent?
765 C2: Yeah.
766 R: Yea::h, in your movement (0.5) only? Yeah.
767 C2: Yeah.
768 R: Yeah (1.0) coo:l this is great!
769 C2: Even the skeleton guy could do it that way. [Jovial laughter]
770 R: Yeah. [Jovial laughter] I love it! [R & C2 laughter] That's great! U:::m: (.) wonderful well I can't think of anything else u:::m: (0.5) u:::h to ask or things (.) u:m: (0.5) I think that's u:::h pretty much summed up what I wanted to talk about=
771 C2: =Yeah?
772 R: and u:::h I just want to sincerely say thank you for your time and effort and energy and commitment to the project and u::h (.) and uh (.) for sharing your thoughts and u:::m (.) opinions=
773 C2: =Yeah.
774 R: they mean a lot to me
775 C2: Mm: hmm.

776 R: so:: (1.0) appreciate working with you.
777 C2: Yeah, good it's nice for me to-to, ya know getting into a process where you (1.5)
actually start (.) thinking things over and uh
778 R: Yeah.
779 C2: yeah.
780 R: Yeah, excellent. Do you have any (.) final thoughts: that you felt like o:h I should have said that or (0.5) I don't...
781 C2: No::: I don't think so::.
782 R: Great!
783 C2: Yea:h.*
784 R: Awesome, well thanks for coming in. [R & C2 jovial laughter] No I really appreciate it. [R laughter] Super! [Turns off the
recording devices]

Conductor Three

- 1 R: [Starts the recording devices] There we go everything looks great. Well thanks for coming.
2 C3: Yeah.
3 R: Yeah (0.5) so the purpose of today is just to kind of get your thoughts about this process of (.) in the motion capture lab and with the accuracy test process and-and um: (.) also just some of your thoughts about conducting in general.
4 C3: Oh okay.
5 R: and it's just sort of meant to be sort of a wrap-up together that you can share with me ya know (.) thoughts and ideas you have about this experience and project and then I'll ask some thoughts that I've been thinking about too.
6 C3: Yeah.
7 R: And um: (1.0) okay so, state your name in full in Norwegian. [Laughter]
8 C3: Oh (.) okay e::: _____.
9 R: Great and how old are you?
10 C3: E::: (0.5) in Norwegian?
11 R: E::: both would be good.
12 C3: Oh e::: thirty-six.
13 R: Thirty-six.
14 C3: Tretti-seks.=
15 R: =Great.
16 C3: Mm: hmm.
17 R: And um: (.) you're currently enrolled in (.) at the Norwegian Music Academy?
18 C3: E::: I::'m:: I'm taking the::: u::m (.) e::: "Viditawning" I don't know what it's in English.
19 R: That's okay. [Laughter] it's kind of..
20 C3: E::: (1.0) it's "ensemblela a.m."
21 R: Yes:::
22 C3: E::: yeah.
23 R: Great and this it's like a two year program where you do first year and then second year?=
24 C3: =And I actually e::: took the second year two years ago.
25 R: Oh okay::y.
26 C3: So now I'm going back to e::: take the first e::: it's (0.3) yeah.
27 R: Yeah that's great so you get to do a little again?
28 C3: Yeah (.) but in-in somehow u::h (.) a little bit different=
29 R: =Yeah.
30 C3: because they're they're u::m yeah (0.3) focusing on different things. So:::
31 R: Oh, great so it's like u::m:: (.) getting a:: u::m (.) a new course in a sense I suppose.
32 C3: Yeah it's more technical u::h (.) this time
33 R: Mm::.
34 C3: and u::h (.) the last time it was more like a rehearsal::l
35 R: O:::h.
36 C3: e:::m=
37 R: =Yeah.
38 C3: Yeah.
39 R: process. Yeah great!
40 C3: Mm: mm.
41 R: And u::m:: (.) so in the past you worked with that and in the past you did the second year of that program did you do the first year of it as well then?
42 C3: No.
43 R: Okay just the second year (.) yeah.
44 C3: Because I have not had my education from here (.) I have it from Denmark.
45 R: O::h okay.
46 C3: So I took e::: a course (.) there in ensemblela.=
47 R: =O:ka::y.
48 C3: So::: yeah (.) and then I (.) took the number two and then number one.=
49 R: =Yeah well this is great
50 C3: So yeah.
51 R: and now I have a good picture of where you have been and everything
52 C3: Yeah (1.0) mm:::
53 R: and whe..where-where u::m: (.) what was the name of the school in Denmark?
54 C3: Aarhus:: e:::m:: (0.5) yeah Academy
55 R: Yeah (.) yeah, great.=
56 C3: =or The Royal Academy I think.

57 R: And that's in what city?

58 C3: Aarhus.

59 R: Aarhus oh that's the name of the city?

60 C3: Yeah. [Laughter]

61 R: Oh, okay great. Sorry I'm really um:... [laughter]

62 C3: It's in Jylland [Jutland] the big e:: the-the big e::m (.) half island.

63 R: O:::h great [R & C3 laughter] perfect.=

64 C3: =Mm mm:.

65 R: And um:: (0.5) do you think some of our emblems and u:m: (.) gestures that we use sort of (0.5) use when we conduct (.) are sort of hardwired into the sounds:: like do you think that the sounds and the motions are really connected?

66 C3: Yea:h it could be some of them:: I think because u:h we all-all are also the musicians, but u:h also we as conductors have experienced u:h (.) music with conducting and then we have (.) I think we have ma-many similar u::m (.) oppfatning e::m. [Norwegian word for understanding]

67 R: Mm: hmm (.) mm: hmm.

68 C3: O:::h s:: (0.3) sorry (1.0) I don't know my..

69 R: No, no (.) I know what you mean. Similar visions and go..goals for the music.

70 C3: Yeah (1.0) yeah (1.0) yeah a::nd i::deas of what we mean if we do like this ya know [demonstrates a common movement]

71 R: Yea:h (1.0) yeah.

72 C3: and so on.

73 R: Yea:h.

74 C3: I-I think so:: (.) yeah.

75 R: Yeah great! In um:: (.) creating these movements to you::: u:m (0.3) maybe not in the moment but, do you think about using the fu::ll dimensions ya know the x (0.3) the up and down dimension and the (0.3) the right and left dimension and the (.) ya know forward and backward dimension?

76 C3: Yea:h (0.5) yeah I::: u::h (.) it depends on what mu-music it is of course, but u:h (.) u::h (.) sure you want to: have as much u::h (.) register as you-you can (.) possibly (.) because then you:: you probably (.) I hopefully

77 R: Yeah.

78 C3: get more but u:h (.) I think for me u::h I have been conducting school bands and

79 R: Yea:::h.=

80 C3: =ya know in many many years of course e: I think that's also one of the reasons I take (0.3) go in school now=

81 R: =Yeah.

82 C3: e:: to-to: develop more because I think I-I have some e::m what do call it some e::: e::m

83 R: little habits or::?

84 C3: habits yes [laughter] yes
thank you (0.5) habits ya
know e:: and u:h things of
doing, a way to do things=

85 R: =Mm: hmm, mm: hmm.

86 C3: and then I-I can e:::m (.) yeah develop that more=

87 R: =Yeah.

88 C3: and uh and get more e::m u:h possibilities=

89 R: =Yeah.

90 C3: for how to show what I want. So::

91 R: Yea:h I think that's really key and u:m:: (.) that's how I:: came into it as well u::m (.) more from conducting school bands and u::m doing that, and then later went and did u::h a Masters in conducting performance but (0.3) u::m (.) I did find I had a lot of little habits too=

92 C3: =Mm hmm.

93 R: and this motion capture system really helped me to fi::nd them a little (0.3) and take them out (.) o::h and the things I liked then I could try new ways and do differently but the things I didn't like I could kinda say, "O::h wait a minute I'm doing that?" [Laughter]

94 C3: Yea:::h.

95 R: but u::m (0.3) and u::m yea:h I:: think it's so:: great that you're doing-doing your studies a::nd-and do::ing that and finding new ways to do things.

96 C3: Yeah (0.5) yeah u::m (.) because e:: or else I think you just fall on dead (.) ya know.=

97 R: =Mm: hmm. [Laughter]

98 C3: Like (0.5) you just stand there like a robot u:::h

99 R: Yea::h, yea::h.

100 C3: but, but I think yea::h the-the capture the e::m::: e::::

101 R: Yeah.
 102 C3: what do you call it?
 103 R: Motion capture.
 104 C3:
 105 R: Yeah.
 106 C3: Yeah, it's so e:: good because e::: you-you take the body away=
 107 R: =Mm: hmm.
 108 C3: and-and then it's:: um e: it's easier to see it in an u::m (.) objective=
 109 R: =Yea::h.
 110 C3: kinda way
 111 R: Yea::h.
 112 C3: e:: because e: when you see ya know your face
 113 R: Mm: hmm:::
 114 C3: and your body it's like o::h no::: o::h
 115 R: Mm: hmm::.
 116 C3: e:: something get's in
 the wa::y.=
 117 R: =Mm: hmm.
 118 C3: The personal thing gets in the wa::y (0.3) but
 119 R: Mm:::
 120 C3: you can really see the:: the motion=
 121 R: =Mm: hmm (0.5) focus on that.
 122 C3: and I-I I like that better.
 123 R: You like that?
 124 C3: It's (.) easier to see.
 125 R: Yes (.) I see your point.
 126 C3: Mm: hmm.
 127 R: But u::m:: it's eas: it's u::m (0.3) I really like that about it too.
 128 C3: Yeah.
 129 R: Mm: hmm.=
 130 C3: =Mm: hmm.
 131 R: And u::m (1.0) I: was thinking about all these little sounds that we've been doing and ways to show them and (0.3) and
 things and u::m: I often think that certain movements we do:: work for many sounds (.) and I wonder why that is (0.5) ya
 know.=
 132 C3: =Yea::h (0.5) because u::h on the tests there (.) it was like (0.5) sometimes e::: everything could be right or=
 133 R: =Yeah. [Laughter]
 134 C3: nothing could be right=
 135 R: =Right. [Laughter]
 136 C3: but, yeah-yeah it's like okay a lottery [chuckle] but [laughter]
 137 R: Which is a little bit frustrating because you're like, "now what is right?"
 138 C3: Yeah [R & C3 laughter]
 139 R: I know it's true::
 140 C3: so:::
 141 R: u::m:: (.) yeah the-the gesture can be so:: ya-ya know universal and work for many things or it can be so:::
 descriptive to only one a:::nd you can't find the match (0.3) yeah.
 142 C3: Yeah (.) but it's also:: e:: that's wha-what we don't see in this e: capture e:: is ya know expressions and e::
 143 R: Mm: hmm, mm: hmm.
 144 C3: e:::m to be present
 ya know, with the
 ensemble=
 145 R: =Yeah. [Whispered]
 146 C3: that's y-you sometimes you just have to s:: (.) look at them and that's::
 147 R: Yea::h (0.5) that's enough.
 148 C3: enough=
 149 R: Yeah.
 150 C3: and you can tell everything from that look what's kind of
 151 R: Yeah.
 152 C3: if you want it soft or
 153 R: Mm: hmm.
 154 C3: or::: or hard or whatever.
 155 R: [Laughter] That's so true:: (.) that's so true::

156 C3: Yeah. [Laughter]
157 R: Exactly. Well I'll get your ideas about the test a little bit
158 C3: Yeah.
159 R: and we'll go through each of the parts.
160 C3: Mm::.
161 R: In Part One (.) you kind of listened to:: the three:: sounds and then you saw one gesture or you saw a gesture and you heard the three sounds (0.3) and
162 C3: Mm: hmm.
163 R: selected the one (0.8) which one was the easiest for you in this part? Did you like hearing the sounds first or seeing the gesture first?
164 C3: Oh ju.. e:: just a minute I have to think, e::m (2.0) e::: I think I (.) I: I liked=
165 R: =Hearing the sounds?
166 C3: The-the hearing e:: first (1.0) yes.
167 R: Mm: hmm getting the sounds in your mind and then trying to find u::h
168 C3: Mm: hmm.
169 R: which gesture?
170 C3: It-it's (.) it's somehow it's e:: because also th..(0.5) this is::-is more u::h elu::sive or:: you don't get it
171 R: Mm::.
172 C3: probably: not that goo::d as u::h the hearing as of the music is very (.) ya know u:h it's: what it is and it's perfect in that way
173 R: Mm hmm, mm hmm, mm hmm.=
174 C3: =and then you could u::m I-I think this is harder to remember::
175 R: Mm: hmm.
176 C3: because of the e::m (0.8) it's a little bit blurry for you::
177 R: Yeah.=
178 C3: =when you look at it (.) it's like o::h (0.5) what's that?
179 R: Yeah (0.5) yea::h.
180 C3: And also,
181 R: The movement is ambiguous a bit.
182 C3: Yeah, I think so:.
183 R: Yeah (1.0) mm:: and then is that (.) would (.) do you feel the same for Part Two that (.) u::m (.) you had to watch three different movements and then hear one sound and (.) or you u::m heard one sound and saw three different movements (0.5) did you also like to hear the sound first?
184 C3: Oh, yeah (1.0) Yeah-yeah (.) yeah.
185 R: Yeah (0.3) because of the same reasons?=
186 C3: =Yeah (.) yeah-yeah.
187 R: Mm: hmm and then (0.3) what were your thoughts about when we had to do the together clips when you sa::w and heard something together and had to find the best match?
188 C3: Yeah I think e::m (.) yea::h it was a::: a little bit (0.3) back and forth I think because you-you also u::m (.) did alter some of the:: the tempos a little bit ya know
189 R: Yea::h (2.0) [giggle] manipulated it?
190 C3: and then a::: yeah (0.5) so:: u::m (.) in theory I think that one would be best
191 R: Mm: hmm.
192 C2: but-but u::h I-I I:: I think (0.3) I thought it was: (.) hard sometimes::
193 R: Mm: hmm.
194 C3: to-to get any connection [giggle] sometimes so::...
195 R: To find one of them to fit it all right?
196 C3: Yeah, but (.) ya know you-you try to:: (.) use your imagina::tion so::
197 R: Mm:::.
198 C3: you always:: got something but u::h:::h
199 R: Mm: hmm, mm: hmm.
200 C3: yeah (1.0) I-I think...
201 R: Yeah (0.3) it wasn't as clear as it perhaps might have been.
202 C3: Mm: hmm.
203 R: U::m (.) mm: hmm yeah (0.3) I think that point about using your imagination is really key ya know for u::h...
204 C3: Yea::h and-and al.. because also u::h (.) of course you couldn't have it just right in the right u::h:::h
205 R: That's right.=
206 C3: =tempo because that's too obvious perhaps? [Giggle]
207 R: Yeah (1.0) yeah that's so true

208 C3: Yeah.
 209 R: and u::m (.) now had you conducted any of the four marches before u:m (.) coming into the study or had any (.) or played them?=
 210 C3: =U:::h (1.0) no: actually I-I didn't.=
 211 R: =They were new to you?
 212 C3: Yeah.
 213 R: That's good (.) okay (.) yeah I wanted to select something that was (0.3) that people didn't really know, so that=
 214 C3: Yeah.
 215 R: everyone was on the same ground.
 216 C3: Yeah.
 217 R: Yeah (.) for the conductors (.) yeah.
 218 C3: Yeah, I (0.3) though I-I thought that u::m (0.5) e:: it (.) the marches it's like e::m (0.3) it feels as a conductor a:: a bit u::h (0.3) e:: narrowing
 219 R: Mm: hmm.
 220 C3: Would you say that?
 221 R: Mm: hmm.
 222 C3: E:: ya know with u::h what you can:: (.) play at u::h because of u::h a-a march is a march=
 223 R: =Yeah.
 224 C3: and u::h...=
 225 R: =Not as expressive.
 226 C3: No: (0.3) yeah exactly. So::
 227 R: Yeah.=
 228 C3: =I-I I:: I remember I-I thought u::m (.) when I s::tood there that u::m (.) oh wow [R laughter] it's like okay this is all-all the same ya know because u::h
 229 R: U::h ha:::
 230 C3: I-I think e:::: I thought it was:: difficult to be u::m (0.5) e::m oh (0.3) me and words today or
 231 R: That's okay say it in Norwegian.
 232 C3: e::::m
 233 R: Difficult to maybe...
 234 C3: oh I don't remember in Norwegian e::h
 235 R: [Laughter] That's okay.
 236 C3: e::h (0.5) e::h (0.5) e::m
 237 R: Difficult to be maybe expre: u::h (.) um: (.) show emoti::ons:: or::
 238 C3: variation.
 239 R: Variation yeah-yeah varied (.) varied movements: and
 240 C3: Yes (0.5) expressive (0.5) e::::: variation=
 241 R: =Mm: hmm.
 242 C3: and-and use the whole register as:
 243 R: Mm: hmm::.
 244 C3: you (.) you-you talked about all the way so::.
 245 R: Mm: hmm (.) yeah that's one of the reasons why I chose the marches is (0.3) cuz they're all very similar and then I (.) what I was really trying to get at (.) I guess in the movements are these little moments like u::m (.) ba da dat (0.3) ba da dee or u::m the ba da deet, ba da dat, ba da duh (.) boo::m or u::m u::h this kind of (0.5) or:: (0.3) yeah what-what people do: in those little sound moments which I call sort of (0.5) sa::lience which is sort of like (.) the moment is important from:: because of what happened before it and what happened after it, which is like your neighbour (.) like your neighbouring sounds the one moment that's a really major sound moment is important because what happened before it was not much and what happened after it was not much.=
 246 C3: =Mm: hmm.
 247 R: And the same thing with your gestures like u::m (0.3) this um (.) sort of (0.3) these little emblems you could say, they don't mean as much if the conductor's really conducting the beat pattern and then they go (.) ba du dup [demonstrates a 2/4 pattern and an emblematic gesture with the spoken rhythm] because that doesn't mean as much but if they (.) just like do (.) almost nothing and then show it, and almost nothing again [demonstrates a minimized 2/4 pattern and the emblematic gesture] that one little moment meant something.
 248 C3: Mm: hmm.
 249 R: So (0.5) I was just sort of looking at those little emblems.
 250 C3: Yeah-yeah, but that's also:: a very good thing because it really u::m (.) u::h (.) utfordre [Norwegian word for challenge] u::h (.) challenge you to:: to see the lit-little differences:
 251 R: A::h yea::h.
 252 C3: in those (.) yeah.=

253 R: Regular marches. [Laughter]
 254 C3: That's (0.5) e::: yeah-yeah very regular marches. [R laughter] So:: that's a good thing also
 255 R: Yea::h.=
 256 C3: =so::: um (.) yeah-yeah.
 257 R: That's goo::d. So: if I had to bring back a group of people to (.) if I was able to come back to Oslo and do this with a similar group of conductors (.) u:::m (.) would it be something that you would encourage the beginning conductor to do? To-to go through this process of looking at their motion with the skeleton and-and to try these tests to think about sound in a different way?
 258 C3: Yea::h it's al-always I think e:::m (0.3) good to do that=
 259 R: =Yeah.
 260 C3: always:.
 261 R: Yeah.
 262 C3: So:: of course yeah-yeah.
 263 R: Yeah.
 264 C3: It's very healthy I think too::
 265 R: Yeah [C2 & R giggle] me too.
 266 C3: to-to get a look [giggle] at yourself.
 267 R: O::h yea::h (.) and u:::m:: (.) and Per Sigmund, he::: u:h told you about the study, is that how you found out about it?
 268 C3: E::: yeah, but I-I u:::h must u:::m (.) admit that I:: didn't know what=
 269 R: =You would be doing?
 270 C3: No::
 271 R: [Laughter]
 272 C3: because I couldn't ya know (.) get what-what it was=
 273 R: =What we were up to? [Laughter]
 274 C3: Yeah so: I just (0.3) okay I just have to conduct and then-then we'll see:::=
 275 R: =Yea:::h.
 276 C3: so it was like that for me, but u::h
 277 R: Mm: hmm and then later did it make more sense what we were up to?
 278 C3: Yes a little bit of course because of the tests, but
 279 R: Yeah.
 280 C3: e::: as a conductor I was: e:::m not that u:::m (0.5) enli:ghtened [giggle] (1.0) I think
 281 R: Yea::h (.) no (.) yea::h?
 282 C3: but u::h I:: don't know still what u::h (.) what you wanted to::
 283 R: Well (.) I guess my mai:::n purpose was to:: (0.3) get at the (.) get at these little moments the little ba da deet, ba da da, ba da dup (.) boom and the ba da deet those little moments u:::m that happen, and u:::m to look at the sou::nd
 284 C3: Mm: hmm.
 285 R: the communication between the soun::d and the gesture.
 286 C3: Mm: hmm.
 287 R: So: the whole point of it for me: (0.3) with the conductors was (0.3) the conductors that u:::m (.) were in the experiemantal group (.) they did the two Learning Sessions in between
 288 C3: Mm: hmm.
 289 R: and one point of my project u::h (.) was to see if (.) what I did with them in the Learning Sessions, where I really instructed them and gave them some coaching (0.3) and showed them in-depth about what these emblems were all about=
 290 C3: =Mm::.
 291 R: if that made a difference to their final conductings:
 292 C3: Mm:::
 293 R: compared to the conductors that didn't have the coaching part.
 294 C3: Mm::.
 295 R: So I was trying to get at (.) if this coaching really helped=
 296 C3: =Yeah.
 297 R: and also to se::: for those that didn't get the coaching how much they improved from their first motion capture to their second motion capture.
 298 C3: Okay.
 299 R: And then the gesture testings (.) or the sort of the accuracy testings were just to see how (.) as a conductor (.) since you did the movements and you heard the sounds (.) how you could match a gesture (.) u:::m: (.) to a sound and match a sound to a gesture and look at them together
 300 C3: Mm: hmm.
 301 R: and see how well you do with this process having been through it all.
 302 C3: Mm::.
 303 R: And also u:::m: (.) ya know with the skeletons, you mi::ght have been able to think a::nd (.) I think that's me. [Laughter]
 304 C3: Yeah-yeah.

305 R: Ya know in the tests?

306 C3: Yeah-yeah.

307 R: Ya know because there was you in the tests (.) right?

308 C3: Mm: mm:.

309 R: And so: to see how you scored when you watched yourse::lf

310 C3: Mm: mm:.

311 R: Because it might be: ya know your perception of your own motion and (.) I guess for me for the conductors it's also an awareness project u::m (.) and you have a lot of experience then maybe some of the younger ones and to say that (1.0) perhaps ya know (.) it's this thinking about motion when you're in motion (0.3) and then: what I think was really tricky for a lot of the conductors that they wondered why was:, I took away the ability to talk about the music

312 C3: Mm: hmm.

313 R: and to instruct the music

314 C3: Mm: hmm.=

315 R: =which usually the conductor does. [Giggle]

316 C3: Yeah.

317 R: But I wanted them:: (.) to encourage the conductors to really try: in the second tri:al (.) to really show what they wanted and often the musicians didn't respond cuz they either weren't watching or:: they weren't in tune with the conductor fully u::h but (.) the idea was that it would just be a pure communication between the sounds and the gestures.

318 C3: Mm: hmm.

319 R: And I chose easy marches so:: that u::m (0.3) that u::m (0.3) orchestral conductors would come to it maybe without much background with the marches but be able to pick it up fast

320 C3: Mm: hmm.

321 R: and just be able to do these little moments that I'm looking at.

322 C3: Mm: hmm.

323 R: So in the end I suppose my dissertation will talk about sort of (.) the:: u::m:: (0.3) I am not sure what the Norwegian terms are but (.) the acceleration into the points of that moment and the deceleration or the:: ya know (.) velocities and-and u::m some of the like (.) the way the spee::d moves in these moments=

324 C3: =Mm:: hmm.

325 R: and the way the energy is in the mu::sic at these moments

326 C3: Mm: hmm.=

327 R: =and to try to see if u::m if there's some kind of a link.

328 C3: But, uh (.) I just u::h (.) wonder u::h (.) when you had this u::m (0.3) u::h oh what did you call it, the mid e::m...?

329 R: Oh the Learning Session?

330 C3: The Learning Session.=

331 R: =In the middle?

332 C3: The musicians were there when you: talked to the conductors (.) or? Yeah, okay.

333 R: Yes:: (0.5) yes:: so they kind of got a little bit of the Learning Session

334 C3: Yeah.

335 R: like they got a little

336 C3: Yeah.

337 R: of the learnings too. [Laughter]

338 C3: Yeah I-I think also they will then know (0.5) even more how to:: react=

339 R: =Yeah.

340 C3: when they are there

341 R: That's right.=

342 C3: =in the::...

343 R: Yea::h.

344 C3: Yeah okay.

345 R: And mainly what we did in the learning part u::m: (.) the one day you were there we just kind of looked at the gestures and we did the dance performance thing

346 C3: Mm: hmm.

347 R: and then the second day (.) they had to just do u::m (.) take out there beat pattern altogether and just show those moments: only (0.5) which you've probably

348 C3: Oh yeah (0.3) O::h that's very good=

349 R: =done before.

350 C3: Mmm hmm.

351 R: You-you may have done that and u::m (0.3) but it just gets them to not even think about the beat pattern

352 C3: M:::.....=

353 R: =and just show me those outlines of those movements and then I would (.) try to help them with (.) u:m well you're doing kind of this
s:..... sh:.....oe[demonstrates a gesture to coincide with sound effect] and does that really reflect what you want out of the sound?
Do you want bu:.....w wa:..w wa:..h ya know? [Demonstrates gesture again with scooping sound effect and C3 & R laughter].

354 C3: Yea:h yeah.

355 R: But so: I was just trying to get them to connect like (.) is that gesture really what you want the sound to be:?

356 C3: Mm: hmm.

357 R: And if it is that's great but if it's not then maybe try this one and=

358 C3: Mm: hmm.

359 R: so: u:m: I think that was one of the (0.3) the::

360 C3: Yeah.

361 R: the parts where um: (.) you have to talk to Conductor One and Conductor
Two to see what they felt (0.3) if they felt they got anything out of it
[laughter]

362 C3: Yeah okay.=

363 R: =but u:m (.) and then I could look later if they would incorporate (.) the new ideas that we worked on into the last conducting one.

364 C3: But u:h (.) are you: satisfied with this project or:?

365 R: Yea:h, yea:h I am, well ya know (.) what's most insightful for me are these
interviews

366 C3: Yeah.

367 R: because I get people's thoughts and opinions about the pro:cess

368 C3: Mm: mm:.

369 R: and also what they think about conducting=

370 C3: Mm: hmm.=

371 R: =and u:m (0.3) I'm really happy (.) and I haven't sco:red all of the accuracy tests yet (.) u:m: (.) and I haven't u:m (.) done any
mathematical data about the spee:d of these movements in these moments and how the moments are really shaped (0.3) but u:m (.)
I'm really happy with u:m (0.3) that u:m (.) that it all worked ou:t and I think I've got really good data and...=

372 C3: =Mm:....

373 R: all of the musi... the musicians and the conductors really committed to the project and (.) and really worked together and (.) and
u:m: (.) I'm really happy that a lot of the conductors u:m: (0.3) came out with u:h an awa:reness of (.) okay (0.3) because the
trick-tricky part with my study is (0.3) I couldn't give them the answer what I: thought it should be (0.3) because then I don't get
their (.) what you said, about this imagination.

374 C3: Mm: hmm.

375 R: Because u:m: (0.5) with all these little gestures (0.3) there's so: many ways to do them: (.) right?

376 C3: Mm: hmm.=

377 R: =It's like (.) and I didn't want to sa:y that it only should be one way (.) because I want to look at the different ways people do things=

378 C3: =Mm: hmm.

379 R: and u:m: (.) but I also wanted them to get this awareness of: myself I guess we call it (.) I call it kinesthesia, but it's the
awareness of yourself in motion while you're in the motion

380 C3: Mm: hmm.

381 R: and then also to really think about the sou:nd.

382 C3: Yeah.=

383 R: =And u:m: (.) and even though it was an easy march (.) to think about these little moments as being special and how do I want them
to be reflected in my movement?

384 C3: Mm: hmm (0.3) mm:..

385 R: Yeah (.) so: u:m:....

386 C3: It's-i:-it's very similar to:: what (.) ho:w Per Sigmund u:h (.) also: working e:: very much like
(.) ya know (.) u:h (.) just take out the hand [the left hand that beats the pattern]=

387 R: =Yeah.

388 C3: and do: thing.=

389 R: =O:h goo:d. [Laughter]

390 C3: It's so: hard.=

391 R: =Yeah it is hard.

392 C3: A::wa:h.

393 R: I know. [C2 & R laughter] I know.

394 C3: But it's very very u:h (.) goo:d.

395 R: Yea:h.

396 C3: It's very good, but I-I think e::: for me: it takes a::while to: adjust and ya know to: i-int..intrigue (.) intrigere=

397 R: Yea:h integrate.

398 C3: Integrate yes:..

399 R: Yea:h yea:h.

400 C3: E::: those motion because e::: (0.3) yea:h you have to do them a lot (.) to:: e::

401 R: Mm: hmm::

402 C3: to-to get them to be yours-your:: your own

403 R: Mm: hm:::

404 C3: but u::m (.) also to look at u::m (.) e::m different directors because , you-you said a lot that e:: you don't want to:: say how it should be.=

405 R: Yea::h.

406 C3: but (.) when you are e:: in a learning process

407 R: Right.

408 C3: I-I think it's very e::m::

409 R: Good to give an idea.

410 C3: goo::d to-to have an idea because

411 R: Mm: hmm::

412 C3: that's why you don't do:: it=

413 R: Mm: hmm.

414 C3: because you haven't s:ee::n it or you:: you haven't e:::=

415 R: =been told to try?

416 C3: the idea:: (.) y::eah.=

417 R: =Yeah.

418 C3: Ya know (.) it's like e:: when you are-are learning u::h to play an instrument and

419 R: Right.

420 C3: you-you you don't know a::h-a::h a::u::m: a note ya know (.) because you haven't learned it yet.

421 R: Right.

422 C3: So you have to:: have u::m: a guidance in some way.

423 R: Mm: hmm, yeah (0.3) yeah.

424 C3: So:: so but (.) e:: you probably as a conductor in development=

425 R: =Mm: hmm.

426 C3: you have to:: look at as:: (.) as many conductors as possible

427 R: Right.

428 C3: to just get-get the:::

429 R: Ideas::.

430 C3: the idea, yeah.

431 R: Yeah.

432 C3: Because you haven't (.) the:: possibilities yet because you don't know ho:w. [Laughter]

433 R: Good point. I like that because u::m: (.) in my work u::h (.) I had these four little things a dab (.) ya know or like this [demonstrates the dab gesture] and a punch [demonstrates a punch gesture simultaneously with the action word] or a press:: [demonstrates a press gesture simultaneously with the action word] or a gli::de [demonstrates a glide gesture simultaneously with the action word] right?

434 C3: Mm::.

435 R: Those were the four that I was really looking at.

436 C3: Okay.

437 R: And u::m: (.) but yeah (.) that's a good point if you've never experienced a gli::de or tri::ed it

438 C3: Mm: hmm.

439 R: then it would feel really weird (.) or you wouldn't know how to do it

440 C3: Yea::h (0.3) you::...

441 R: right?=
[Laughter]

442 C3: =No, you don't do it because you don't know it. [Laughter]

443 R: Try (0.3) right or know it, and u::m (.) the same thing with the little dab ya know.

444 C3: Mm::.

445 R: And u::m (.) and I think u::m (.) the key is first of all (.) you recognize like (.) in the music where you think one should be: and would be (.) work well, and then of course then it's practicing how it works [laughter] with the movement. And...

446 C3: Mmm::.=

447 R: =so u::m: (.) I've always found in my studies that (0.3) it was: a matter of that, that was the thing I always found in my own growth is that (.) okay (0.5) I:: ha:: (.) I hear the music and I know how I want it to sound=

448 C3: Mm::.

449 R: but then how do I make my movement reflect that?

450 C3: Mm::.

451 R: And I think that's a big challenge isn't it?

452 C3: Mm: hmm (1.0) a::nd-and also in e:: Aarhus (0.3) my u::h (.) conductor e::m teacher there he

453 R: Mm: hmm.=

454 C3: =was (.) very much like that. He-he wanted to show everything in the first (.) e:: session e:: when you meet the musici-musicians for the first time you just show as much as you can the first time so: that they really have u::m (0.5) e::: an im.. (0.3) an impression of... what you want.

455 R: what you want.

456 C3: Yeah e: but, I think also it's very:: (.) e::m (0.5) e::: u::h it depends on the-the ensemble you get

457 R: Mm: hmm.=

458 C3: =because in-in school sessions you always have these good musicians who, who if you show them something they can really adapt it

459 R: Mm: hmm.

460 C3: but sometimes when you have e::: musici-musicians who doesn't know how to play e: you-you just

461 R: Ri::ght (0.5) ri::ght.=

462 C3: =have to focus on (.) okay come

463 R: Technique (.) and=

464 C3: come on this beat

465 R: Yeah. [Laughter]

466 C3: and then (.) there you play like this and

467 R: Yea:h.

468 C3: u::h (0.3) yeah, you know. [Giggle]

469 R: It's so:: true::.

470 C3: So u::h (.) with many years like that you just get a little bit e::m

471 R: Tainted to it?

472 C3: av (.) avstumpet [Norwegian word meaning stunted] e:::m.

473 C3&R: Yeah.

474 R: Yeah. I know what you mean.=

475 C3: =Mm: hmm.

476 R: And u:: m: (.) I guess may...when I go back in to work with the schools u::m (.) which I get to do as a guest sometimes, I always think about (0.5) when I do these more grand ya know expressive gestures (.) I try really hard to teach them the mea::ning behind the gesture, and like

477 C3: Mm: hmm (.) yeah.

478 R: okay if I do this, this is what I want the sound to be and then they're young and their technique is not so good, but they sort of are getting the idea of what we want the music to be

479 C3: Mm: hmm.

480 R: and the shape of the sound which is yeah.=

481 C3: =And then they are also I think they are also e::m u::m (.) very good at u:::m (0.3) yea:h (.) do that u::h full heartedly if you want it big you really get it.

482 R: Yea:h.

483 C3: Right, if you want it big you-you really get it.=

484 R: =Yeah it might be out of balance but they'll give it to you right? [Laughter]

485 C3: Because they really [chuckle] dig you. Yeah-yeah (0.3) yeah-yeah. [Laughter] They really (.) put their soul into it.

486 R: Yeah they do (.) don't they? [C2 & R laughter] I think that's the joy of working with children

487 C3: Mm: hmm.=

488 R: =because they're very eager and they really want to get it and they want to try, and u::m (.) that's why I encourage sort of u::m (.) conductors who maybe do more work with professionals when they come and work with chil...school children I try to tell them don't change anything about the way you conduct, do everything you would with your professionals only teach the children what those things that you're doing mea:n.

489 C3: Mm: hmm.

490 R: And you might have to stop and explain it=

491 C3: =Mm::.

492 R: but u::h (.) that this motion means I want this ya know.

493 C3: Mm: hmm.=

494 R: =Using metaphors: and

495 C3: Mm::.

496 R: ya know and things but u:::m (.) then they get this real like (.) sensation of wo:w I worked with this mae:stro and (.) wo:w I got this and then (.) this mu:sic is really different now and-and

497 C3: Mm::.=

498 R: =the nice thing about children I always find is (0.3) they progress really quickly and from where the sound wa:s to where it is no:w in just a short

499 C3: O::h yea:h.

500 R: period of time like

501 C3: Mm: hmm.

502 R: is like (0.5) a good (.) really u::m big (.) progress (.) I guess (0.5) and the::n...

503 C3: Yeah, it's so funny to see it=
504 R: =Yeah.
505 C3: and to be a part of I-I: I love it.=
506 R: =Yeah.
507 C3: It's:: u::h (.) very good.
508 R: But good for you: that you're doing these (0.3) projects in::-in your own work and studies because (.) when you do go back and work with those groups or you come in as a guest conductor: again or: whatever work you do, then u::m:: (.) then you:: then you're able to bring the students even farther=
509 C3: = Mm::.
510 R: in the: ya know once they have the techniques down and you've done the hard work of instructing them and (.) and then getting everything together, then you want to go to the next level of expression and then (.) you have (.) you are able to:: and then (.) they can respond and...
511 C3: Yeah and I also think e: e:: with e:: I have u::h (.) a group of new beginners ya know
512 R: Yeah (0.5) yeah.
513 C3: and then u::h (.) as you say also I want to (.) them to:: u::h (.) scholate them=
514 R: =Yeah.
515 C3: u::h (.) in u::h what I mean and u::h (.) to be accurate when we start=
516 R: U::h huh.
517 C3: we all start at one time=
518 R: =Yeah
519 C3: if we do it soft or loud=
520 R: =Mm: hmm.
521 C3: or:: happy or sad
522 R: Mm: hmm.
523 C3: or (.) you know it's-it's so:: u::h exciting I think because e::m (0.3) they u::h (.) yeah they really commit themselves to: (.) to it and
524 R: Mm: hmm.
525 C3: it's a pleasure too just not ya know (.) u::h young children don't just play the notes
526 R: Mm: hmm.
527 C3: e: not focus just on that but, really
528 R: Mm: hmm.
529 C3: make them to think mu:sic at the first=
530 R: =Start of it.
531 C3: start of it yes
532 R: Mm: hmm.
533 C3: it's so::=
534 R: Mm: hmm.
535 C3: it's very: (0.3) cool (0.3) I think. [Laughter]
536 R: Yeah it is cool. [Laughter] I think it is cool=
537 C3: =Yeah.
538 R: and hopefully with this project I (.) my sincere hope with you would be that (.) u::m (.) when you get your little clips of your video::s and also of your: m::o (.) ya know the skeleton point light motion capture stuff, that you can see some things that you say o::h I liked that and well that worded really well and (.) ya know or u::m (.) that's weird that I did that [C3 laughter] ya know (.) and then hopefully the whole (.) the project will come full circle.
539 C3: Mm::.
540 R: because it's really hard u::m (0.3) I just don't have enough time to get these clips ready (.) to let you review them ya know (.) u::m earlier because it takes a long time to make them=
541 C3: =Yeah-yeah.
542 R: but u::h but in a cou.. (0.3) but I'll definitely leave like (.) all of the clips with Per Sigmund to give to you and have a look at and also, get his thoughts too (.) cuz hey what do you think about this?
543 C3: [Laughter]
544 R: Am I on the right track? And...
545 C3: [Laughter]
546 R: I know these are marches but u::h (.) what do you think here?
547 C3: U:h huh.
548 R: Yeah, cuz I mean like you said, it's a whole like (0.3) progress and...

549 C3: But u::h u::h can I ask u::h why here in Oslo:?

550 R: O::h yes: (.) I chose it because of the lab here.=

551 C3: =Oh.

552 R: They have this motion capture lab and u::m (.) the group is called FourMs it means like (.) mi:nd, mo:tion, music and machines (.) I think.=

553 C3: =O:h yeah.

554 R: And u::h they have this motion capture (.) and then...

555 C3: Sounds good.

556 R: Yeah [laughter] and u::h (.) so they had u::m a very similar lab to what I have in Canada.

557 C3: O::h, okay.

558 R: So:: (.) but the cool part about here is it's (.) the one in this (.) building only for music researchers (0.3) u::h (.) so that's great because I had the lab and I didn't have to share it with other departments: who needed to use it at the same time and that, so (.) I could come (.) and then the:: professor here, his name is Rolf Inge Godøy, he:: and this other man (.) wrote this book u::h let's see if I:: (0.3) oh here (0.3) it's called *Musical-Musical Gestures*.

559 C3: O::h, okay.

560 R: And they have it in the Akademika [University of Oslo Bookstore] here on campus:. So if it's something you want to look at, but I chose it because this author (.) Godøy he's u::m (.) here (.) at

561 C3: Mm::.

562 R: this university (0.3) and then another guy named Alexander Refsum Jensenius: (.) he has a chapter in this book too (.) and he works here as a post-doc.

563 C3: What kind of book is this u::m?

564 R: It's u::h (.) it's about u::m:: (.) it's mainly about (.) all about gesture I suppose (0.3) sound, movement and meanings. So:: u::m all about (.) like our motion history, the quantity of motion that we use, the types of movements that we do u::m::

565 C3: Mm: hm.

566 R: and u::m (.) he rea::lly: is trying to say okay (.) this is what gesture is:: and u::m (.) here's how we define it, and this is how people use it and (.) so it's kind of more a scientific view of gestures=

567 C3: =Yeah yeah (.) okay.

568 R: but u::m but that's kinda why I chose to come here so I can get their views [giggle]

569 C3: Yeah.=

570 R: =but they talk about these little (.) [demonstrates emblematic gesture] ya know.

571 C3: A::h very interesting though (0.5) more for

572 R: Yea:h it's mo::re

573 C3: us?

574 R: Mm: hmm.

575 C3: Rea:lly because u::m: (.) yeah (0.3) it's something you::...

576 R: It fits u:h (.) probably about a lot of things you discuss at the:: u::h (0.3) u::m conservatory they probably discuss a lot about it.

577 C3: Yea:h I-I never heard of this book but (.) e::: perhaps I just

578 R: Yea:h (0.5) it's (.) u::m: (.) they have like illustrations of motiongr::ms like how our movement looks and sound tracing examples where you draw a sound

579 C3: Mm: hmm.

580 R: u::m: and these little sound moments (.) what they look like and (.) how they studied them and they have clarinet players and how they move to the phrasings and (.) things.

581 C3: Yea:h.

582 R: Yeah (.) so: it's very u::h (.) it's an academic book but it's I think rea::lly interesting the way they (0.3) look at gesture.

583 C3: Yea:h.

584 R: They've done studies with like (.) piano players and the way their hands move and head moves and body moves and maybe even the sort of (.) wrists and-and so I'm trying to do a similar thing, but with conductors. [Laughter]

585 C3: Yea:h yeah. O:h that's great.

586 R: Yea:h.=

587 C3: =but u::m::

588 R: but that's at the Akademika they have a hard cover and a soft cover version (.) but

589 C3: Probably in Norwegian also (.) perhaps?=-

590 R: u::m this one's in English but this author here has a great book in Norwegian u::m: (.) Jensenius I just have to find his chapter [flips open book to find the reference] and he (.) Jensenius has a lot of stuff on-line, but this FourMs that I'm talking about it has u::m FourMs Wiki (.) Wikipedia. So this guy Alexander Refsum Jensenius (.) he has a great book in Norwegian.

591 C3: Yeah.

592 R: And u::m (.) it's u::m (.) the summary it (.) like it's musical gestures and u::m (0.3) u::m (.) this: is like (.) this chapter is like the summary of his whole book. [Laughter]

593 C3: Right (0.3) great.

594 R: But um: (.) so if you want to read that chapter to know if you're interested then his whole book is really great but I haven't read because it's in Norwegian=

595 C3: =[Giggle] Mm:: (.) mm: hmm.

596 R: but u::h I know this is the:: kind of like what the work is about.

597 C3: Mm:: (0.5) okay.

598 R: Yeah (.) so: I find u::m it's really he's developed this pro::gram of being able to:: u::m (0.5) produce like (.) ya know how (.) u::m (.) spectrogram, a graph of the sound (.) looks? He's made this program where we can look at the graphs of your motions::.

599 C3: Okay:y.

600 R: Same way that sound (.) is graphed it's similar the way we trace your gestures.

601 C3: Okay:y.

602 R: So-so he's really u::m (0.3) done some work with that so::.

603 C3: Mm::.

604 R: He-he's done (.) this is kind of like um:: (0.5) a motiongram, and these little dots are when the toes were tapping to the music [R points to the motiongram in the textbook and laughter]

605 C3: Okay. [Laughter]

606 R: and this is when the head was: I think moving= [R points to the top of the motiongram]

607 C3: =O:::kay.

608 R: and then these are the u::m (.) the body (.) no these are the legs (0.3) when you shifted your weight [R points to lower portion of the motiongram]

609 C3: O::h.=

610 R: =and then this is with the arms and hands moving (0.3) the two lines (.) I think are the different hands.

611 C3: Yeah.

612 R: So he's done this system of being able to look at movement in this wa:::y (0.5) there's the performer performing, but

613 C3: Mm: hmm.

614 R: u::m:: (0.5) and then [deep breath] yeah, it's interesting that they (1.0) have kind of looked at, sort of these postures and how we make music and (.) what it means and things=

615 C3: =Mm::.

616 R: and I think this is:: (1.0) oh, like u::h (.) when they ask (.) I think this is it (.) but when they ask people to dra::w to music what they are hearing it brings out certain things

617 C3: Mm::.

618 R: but (.) it's u::m::: it's kind of clever because it's a little bit like sound tracing but (0.5) yeah but it's a good little book for knowing what's happening out there=

619 C3: =Yea:::h.

620 R: and so..

621 C3: Mm: hmm.

622 R: Yeah thanks for the interview (.) I know you have to get to work and

623 C3: O::h (0.5) no:: (.) that's: oka::y. [leafs through the book and stops on a page]

624 R: This looks like some more graphs and (2.0) but u::h yeah you can u::h (.) that's the nice thing about being here is these guys are really accessible to-to ask them questions about their work and u::m a lot of what they are doing is u::h=

625 C3: =What is he::: teaching e:::?

626 R: These guys?

627 C3: Yeah or u::h.

628 R: U::m: (.) Rolf Inge he's a professor here (0.5) he teaches:: u::m probably mostly (.) systematic musicology courses how to analyse motion and sounds=

629 C3: =Okay.

630 R: Like u::m: (.) I think those type of courses to probably Masters students

631 C3: Okay.

632 R: M::asters in Musicology students I think, and then he supervises PhD students who are looking into these things::.

633 C3: Mm: hmm.

634 R: Yeah (.) so he's...

635 C3: I didn't know it was a study like that involved.

636 R: Yeah. [2.0 seconds of laughter]

637 C3: O::ka::y. [Laughter]

638 R: Well I guess (.) we don't do a lot of this: in Canada:: they do it at McGill University in Montreal, but they don't do it u::m: (.) at any other places rea:::lly that much in Canada so that's why I had to come all the way to Norway [chuckle] but I'm glad to have come. [Laughter]

639 C3: Yeah, yeah. Then you could e::: experience Norway also.

640 R: Yea:::h which is beautiful so::.. [Laughter]

641 C3: Yeah (.) that's good. [Chuckle]
 642 R: Yea::h (1.0) yeah so::, but thanks for your thoughts and u::m::
 643 C3: Oh yeah sure.=
 644 R: =and I'll make sure to get you clips to Per Sigmund so you can have them and best of luck (.) with your groups a::nd
 645 C3: Likewise.
 646 R: Oh, thanks:: (.) and u::m=
 647 C3: =Do we get any:: (.) I don't know if you-you're going to write u::h something
 648 R: Yes::::
 649 C3: probably about this study o::r?=
 650 R: =Yes:: absolutely it will take me u::m (.) u::h (.) probably about a year::r to write it and then another year to have it published.
 651 C3: Yeah.
 652 R: But before anything goes to print or anything I'll u::m:: (.) give you guys all a copy of the manuscript=
 653 C3: =Yeah.
 654 R: and you can look at things and remember that you were conductor number three::
 655 C3: Yeah. [C3 laughter]
 656 R: and um:: (.) and what came out of it, but u::h but definitely I will follow up with all of you::.
 657 C3: Yeah.
 658 R: Mm: hmm.
 659 C3: Okay.
 660 R: Yea::h so thanks::.
 661 C3: It-it will be e::: fun to look at.
 662 R: Yea::h. [Laughter]
 663 C3: What this all (.) e::::
 664 R: Meant. [Laughter]
 665 C3: was about. [R& C3 laughter]
 666 R: I know it's quite a study ya know it's lots going on and the gesture judges (0.3) this guy was one of them (.) and the other guy I mentioned and then the dance expert she looked at all of your clips I sort of got their thinkings on your movements too
 667 C3: Yeah okay
 668 R: so that's kind of neat.
 669 C3: but e::: yeah because (.) we don't get any::: information about that?
 670 R: No you will once it's all co-collected and
 671 C3: Okay (.) yeah.
 672 R: then put in one u::m:: (.) spreadsheet I guess (.) but you'll only see what yours was=
 673 C3: =Mm hmm.
 674 R: and then in the final dissertation you'll get to see what everyone's was
 675 C3: Mm::.
 676 R: but u::m:: (.) but that's more I guess numerical data, but um: (.) but it's feedback none the less.
 677 C3: Yeah (1.0) okay.
 678 R: Mm: hmm.
 679 C3: Mm::.
 680 R: Yeah, great.
 681 C3: Yeah.
 682 R: Well thanks for your ti:me we're right (0.3) at noon so I'll let you be off then.=
 683 C3: =Yea::h thanks.
 684 R: Thanks and have a great day. [Turns off the recording devices]

Conductor Four

- 1 R: [Starts the recording devices] Okay, so: (0.5) thank you for coming today. It's u::m: (.) the purpose of today is to: ensure that:
(0.5) u::m (.) I can get your insights on having gone through this study with me
- 2 C4: Mm hmm.=
- 3 R: =so u::m: (.) doing the accuracy tests we'll talk about, and also we'll talk about just some background information about yourself, and
then we'll also talk about (.) um: your thoughts about movements and gestures (.) and your thoughts about having been in the motion
capture lab (0.5) so...
- 4 C4: Yea:h.
- 5 R: it's about your insights (.) and I'm going to use your insights: um: (.) and by the way everything that you say is being recorded, but
before I publish anything I will provide you with a transcript of what you said and how you said it, and if you don't want it included
you can let me know. So for example if you say like (.) I really feel this and I-I put that little sentence in my dissertation quoted
from you, I wi... before doing that I will send you: a copy, you'll read it over and say yeah that's what I meant. [R & C chuckle]
- 6 C4: Yeah okay.
- 7 R: So basically you get to say um:: (.) yes (.) that is what I meant or
- 8 C4: Yeah.
- 9 R: no that's not what I meant at all [laughter] and don't use
that. So you have a right obviously to your thoughts.
- 10 C4: Yeah (.) yeah.
- 11 R: Okay so (.) please state your name in full.
- 12 C4: E::m in Norwegian or English?
- 13 R: U::m in Norwegian.
- 14 C4: E:: _____.
- 15 R: Great thank you: (0.5) and also how old are you?
- 16 C4: Eighteen.
- 17 R: Eighteen okay (0.5) and you're currently enrolled as an undergraduate student at the Norwegian Academy of Music?
- 18 C4: Yea:h.
- 19 R: Okay and how do you say it in Norwegian again (.) the school name?
- 20 C4: Norges musikkhøgskole.
- 21 R: Excellent [chuckle] um:: what is you::r field of study or area there (.) like what are you studying?
- 22 C4: E:: conducting.
- 23 R: Okay (.) and what year of your program are you in?
- 24 C4: First.
- 25 R: First okay, and you started i::n September or end of August?
- 26 C4: Yeah August.
- 27 R: Okay (1.0) what (.) e::m (.) have you, have you taken two or fewer courses in conducting?
- 28 C4: Fewer.
- 29 R: Yeah (.) have you u::m: (.) now that you're enrolled as a student are you studying lessons then with someone?
- 30 C4: E::m no (.) I am simply following the course as it is laid out.=
- 31 R: =Yes: and eventually in your studies you will be studying privately with u::m: (.) with someone?
- 32 C4: I'm not quite sure (.) yeah well u::h (.) I mean we have (0.5) when you say private do you mean like one on one?
- 33 R: Yeah like lessons like u::m:...=
- 34 C4: Yeah well it doesn't seem like the:: e:: teaching is put-put up that way at least in the start maybe after awhile
but...
- 35 R: Mm::: (1.0) mm hmm (1.0) oh okay great. So in the start u::m (.) you have u::m (.) a series of courses
group courses:?
- 36 C4: Yeah group courses.
- 37 R: Okay in-in Music History?
- 38 C4: Yeah (.) but in Conducting as well
- 39 R: O::h.
- 40 C4: with Per Sigmund for example we (.) we are five e::: five individuals and also with (.) with the
rehearsal orchestra (.) we are also several (.) at the same time (.) conducting each other.
- 41 R: Oh oka::y (.) so the one that you mentioned is like a laboratory orchestra that you: play in and you conduct?
- 42 C4: Yeah yeah.
- 43 R: Oh that's great (0.5) and that's part of your conducting course with Per Sigmund?
- 44 C4: Yeah yeah.
- 45 R: O:h that's wonderful, so there's a group of you (.) five of you that are in first year that work with him and u::m (.) and you conduct
with the laboratory orchestra and also conduct together as a class?
- 46 C4: Yeah.

47 R: Yeah (0.5) oh thanks it helps me to understand what you're up to [chuckle] and where you are in your u:m: (.) journey. In my field of u:m: (.) musicology I guess:, is we talk about this idea of tra::cing the sound which could be like u:m: (.) drawing the sound in some way with your movement (.) do you feel that your gestures or emblematic movements are done or performed with the intention of tracing or drawing the soundscape or sound landscape?

48 C4: E::m well that-that obviously depends on the music I think

49 R: Mm:::

50 C4: especially if you e::: if it's really adagio you might really go into the musical colour with-with the movement of your hands (0.5) but in a (.) in a fast Beethoven symphony you won't have time to do that.=

51 R: =No.

52 C4: You might not even need to, I don't know.

53 R: [Laughter] So you think that it's u:m: (.) u:m: (.) dependent on tempo too::?

54 C4: Yeah yeah (.) yeah I:: think and u:m: (.) the character of the music.

55 R: Mm:: (.) yeah (.) u:m: (.) why are so:me gestures (0.5) this is something I've always been wondering (0.5) why are some movements or gestures good or appropriate for a wide number of sounds? (1.0) So like some gesture um: (.) you might use for many situations::.

56 C4: Well I think that maybe those movements indicate the general (0.5) general thought, and then (.) that when the musicians actually have the music in front of them, they just (.) need that (.) that e::: encouragement that the conductor gives and that they don't (.) they just need that in order to do what's written (0.5) but that e:::h if-if they if they didn't have the music if they were just to improvise solely based on what the conductor is doing then (.) they would all have e::: interpreted differently.

57 R: Mm::: that's great (0.5) very insightful. [Laughter] I love these interviews because they really get at u:m:: what conductors think and feel about what they do, so thank you this is great. U::m: what are some elements or properties or elements of sou::nd that change frequently o:r (.) and require an action or movement to help encourage them, like what you were talking about.

58 C4: E::m once more please (.) e:::m wha::t?

59 R: E::m u:m: (.) what are so:me elements or-or properties or things in sound=

60 C4: =Yeah.

61 R: that would require you (.) that-that change a lot?

62 C4: Okay I:-I think I understand what (.) you...

63 R: That might make you want to do a movement (.) like you were saying to encourage them, encourage the players.

64 C4: Yeah.

65 R: So what are these cha... what are the thi:ngs in sound that change?

66 C4: Well u:m: (0.5) I imagine if there was a change (.) I mean obviously in dynamics, in character, in tempo (.) all sorts of (.) e:::m (.) ob-obvious changes in the music.

67 R: Mm::.

68 C4: E::m...

69 R: No this is great (.) that's what I'm a:fter.=

70 C4: =Yeah?

71 R: That's what I was: (.) that's what I always think about too (.) and u:m: (.) yeah because my (.) a lot of my work deals with what conductors do in these moments that have these changes.

72 C4: Yeah.

73 R: Yeah (.) great (0.5) and I mea:n ya know, jump in if you wanna add something. [R & C4 chuckle] U::m: (.) do you think some of your: emblems or gestures, that you know u:m:: (.) and use (.) are strongly linked or: are sort of hardwired to particular sound moments? And what I mean by this is like if you hear u:m: (.) ba da deet, ba da dut, ba da dum (.) boo::m with a big bass drum hit (.) in let's say (.) that (.) in kind of a (.) character and sound, and the bass drum hit happens in another march, would (.) do you think that some of your sou::nds and actions are linked together that you might use that same gesture for that (.) for another bass drum hit, or do you feel that you might u:se um: (.) different gestures for that (.) those type of moments?

74 C4: U::m: (.) I think that the movement would (.) contain the same emotional content of-of a bass drum hitting=

75 R: =Mm: hmm.

76 C4: really hard um:: (.) I don't know as I said in my questions that I answered e:::m=

77 R: =Mm: hmm.

78 C4: I am not quite sure if e::: conducting gestures are universal=

79 R: =Mm::.

80 C4: that (.) the same conducting gesture always means the same thing

81 R: Mm: hmm.

82 C4: but e:::m, I mean of course (.) just a lone bass drum hit could-could well be ya know the same movement each time because it's (.) they only need the (.) the instruction to hit that bass drum very hard

83 R: Mm: hmm (1.0) mm: hmm.

84 C4: ya know.

85 R: Mm: hmm (0.5) yeah. In um: (.) in creating your gestures and emblems that occur in these type of sound moments, the maior sound moments, do you think about your movements as having different dimensions like um: the x (.) we'd say the x is like back to front [moves in that manner] and also y (.) ya know (.) right to left [moves in that manner] and then z (.) up and down. [Moves in that manner] Maybe not in the moment, but u:m: (.) as you go through (.) do you think about your movements as having the ability to go in all of the dimensions in space?

86 C4: I don't think I, I think about it consciously=

87 R: =Mm::

88 C4: but that it-it's probably (0.5) there because I want (.) I want it to be (.) I want as a musician to see (.) to see something e::: (0.2) and then it just becomes like that, but I don't think consciously, will this have a greater effect there [hands move up]

89 R: Or here. [Hands move right]

90 C4: then here [hands move down]

91 R: Or here. [Hands move left]

92 C4: or here. [Hands move left]

93 R: O:h okay great. If the sound mo...now I'm going to ask you a few u:m: (.) questions, and I might sing to you [giggle] a few little ditties from (.) from our excerpts, if you can explain to me with words and-and also (.) with maybe a gesture, what you might do (0.5) okay? So I'll give you an example, if the sound moment is ri:sing in pitch (.) what action might you do um: (.) or (.) what way might (.) what motion might (.) what you might do? Like if it's (.) if the sound, if a sound is like going do::: [Sung ascending pitch glide]

94 C4: U:::m (0.5) that depends if there was e::: a decrescendo at the same time, I might (0.5) ya know (.) like draw back. [Hands move in this manner]

95 R: Mm::: (.) how about if the opposite (.) if there was a crescendo at the same time what might?

96 C4: If there was a crescendo I might have [demonstrates an upward glide movement]

97 R: O:::h.

98 C4: done something tha-that that u:::m: (.) um: (.) yeah just appropriate to the character I don't kno:w u:::h...

99 R: No that's good showing me is really good=

100 C4: =Yeah?

101 R: because then I understand what you mean, and then also (.) if the sound moment is fa:lling in pitch (.) what action might you do? Like let's say it's falling in pitch and getting stronger like u:m dooq::: [Giggle]

102 C4: E:::m (0.5) well then I would [soft giggle] that [soft giggle] is a difficult (.) question. [Giggle]

103 R: I know it is [laughter] it's ha:rd I guess um: what I'm playing around with (.) is sort of thinking (.) I guess we're putting a couple things in, we're putting like (.) amplitude in, how strong something is (.) and as it changes and also (.) we're putting in a pitch and=

104 C4: =Yeah.

105 R: what some people say is that (.) a lot of people (.) u:::h (.) say with rising and falling pitch that it is identified in the height that you put things, so some people if you ask them to move spontaneously to a rising pitch they might (.) bring their arms up [demonstrates the movement] or they might show a falling pitch [demonstrates the movement] like that or some type of downward glide (.) yeah.

106 C4: Yeah well I-I I did I don't think I consciously think about conducting the pitch=

107 R: Mm: hmm.

108 C4: e:::m ya know like hi-high, but if the if it's u:::h (.) if it's u:::h (.) really high ya know (.) like really really high, like just piccolos and high violins then I might go up here [brings arms up]

109 R: Yea:h.

110 C4: but e:::m I mean i: in-in in a melody in the orchestra whi-which might be supported by the bass and up there=

111 R: =Mm: hmm.

112 C4: I mean when you have-have the entire spectrum

113 R: Mm: hmm.

114 C4: I don't think I would (0.5) go up and down

115 R: Mm: hmm.

116 C4: as the music varies in pitch.=

117 R: =Mm: hmm and then I guess it depends like you were saying on the um: (.) the orchestra:tion whose in on the game.

118 C4: Yea:h (.) yea:h.

119 R: So if you had like all low bra:ss sounds like um: bass u:::h

120 C4: Yeah I would (.) I would probably go down here

121 R: Yea:h.

122 C4: and (.) and...

123 R: Like with trombones and-and um: (.) and the horns and

124 C4: Yea:h.

125 R: and the tuba: euphonium and (.) then (.) the low low double basses you'd be down here more?

126 C4: Yeah.

127 R: Mm: hmm (.) okay great (0.5) um: (.) in my study we did things like u:m: (.) little sound moments that were light but sudden (.) meaning they were quick and-and light, like (.) ba da deet (.) ba da deet. [Giggle] These little moments people tended to do: a little gesture, um: (.) sort of like um: (.) yeah they're just little kind of like (.) little dabs in the music you could say like, ba da deet (.) ba da deet. Did you find that (.) I can't remember, but did you find that (.) like those (.) the music or that sound made you do any little thing there? I* can't* remember* with those little sound moments?

128 C4: Could-could you give me an example?

129 R: Sure um: (.) let's see:: if I can sing one of the [chuckle] um:: (.) at the start um: (.) let's see:: u::h (0.5) ba da yup, ba da yup, ba yup, bee up, bee up, bee up, bee up (.) ba dee yup (.) ba da yeep.

130 C4: You're saying that you think that-that...

131 R: Those (.) two little ba dee yup or ba da yeep moments. [Laughter]

132 C4: O:h yeah-yea:h e::m...

133 R: Yea:h (.) they're kind of like (.) they sort of are like (.) the end of a phrase and then a little idea, like with some space in between=

134 C4: =Yeah.

135 R: ya know (.) so I don't remember u:m: (.) these little moments where (.) would they (.) do you remember if they caused you to (.) do any little gesture that went with them?

136 C4: Yea:h the-they probably did I mean at least I: (.) I: (.) I did a cue=

137 R: =Mm::.

138 C4: e::m in the very least I-I I:: when-when you have such a-a little idea it feels like a trifle, a trifle idea=

139 R: =Uh huh.

140 C4: you know (.) it so you just like (.) throw it out of your sh:: (.) your (.) ya know, e::m so I probably did some-something like that. [Demonstrates a little dab gesture]

141 R: Yeah (.) cool. If um: (.) if the sound moment is stro:ng and sudden and like we were talking about, like a bass drum (.) boom like um: (.) da du deet, da du dah, da du da::h (.) boom or:: a cymbal crash which is little bit different kind of a sound, but like csh:::==

142 C4: =Yea:h.

143 R: uh (.) how might you move (0.5) uh (.) if you?

144 C4: U::m: (0.5) I might um: (.) I-I I might (.) I would give a (.) a strong upbeat

145 R: Mm::.

146 C4: u::m: to give the encouragement, and also I would probably use my eyes:.

147 R: Mm::.

148 C4: A::nd (.) you know as as...

149 R: Like a connecting with the musician with your eyes:?=

150 C4: =Yeah.

151 R: Yea:h.

152 C4: E:: help with the left hand (.) to-to to:: to show what kind of power I want.

153 R: Mm: yea:h (.) and then the right hand performs the actual action?=

154 C4: =Yeah the-the right.

155 R: But the left hand shows the strength (.) of it?

156 C4: E:: (0.5) they both show the strength.=

157 R: =O::h (.) yeah.

158 C4: And I think that the right hand sh-should show everything that the left hand also shows

159 R: Mm:::.=

160 C4: =a:: at least that it can show

161 R: Mm: hmm.

162 C4: and then that the left hand should um: (.) ya know ya know (.) um: (.) it could do the same thing but (.) I don't believe in just separating the right and the left hand, so that the right hand shows the beats and the left hand the music, but=

163 R: =Mm hmm mm hmm.

164 C4: they should both show, and the left hand can (.) can really uh (.) even more it can u::m...

165 R: Mm::: encourage it even more?=-

166 C4: =Yeah yeah encourage it even more and be even more clear about it.

167 R: Mm: (.) cool. (0.5) I love talking about conducting [laughter] I think it's because I am one, ya know a conductor, but I love learning what other people think about these things. [Laughter] Oh (.) um: (.) do think about um: (.) these emblematic moments that we're talking about as having (.) shape to them?=-

168 C4: =E:::...

169 R: Like a:: (.) like a musical object you might say has some kind of a shape (.) like if we talk about these sounds as an object (1.0) would you think that some of these moments are like a shape, shapes?

170 C4: E::m: (0.5) well they would a:: always be abstract shapes in that sense ya know, and not like a triang-triangle or a square.

171 R: Yeah [R & C4 laughter] not actual um:::...

172 C4: Geometrical patterns.

173 R: Yeah (.) geometrical shapes, but um:::...

174 C4: Yeah. (3.0)

175 R: Mm::.

176 C4: Ye-yeah it yeah (.) they (0.5) they probably could I mean (0.5) yeah um: (.) and that might be: (.) might or might not be (.) um: (.) so I mean for example, you could (.) use another, there would be a:: there would be a:: an ordinary dra-dramatical shape, but ya know the bura yah, bura yah, bura yah, bura yah? [Sung rhythmic passage from earlier]

177 R: O::h yeah:h.

178 C4: It could be like a circle, and then you could conduct it that way, but I mean that would (0.5) not be a traditional technique just conducting in circles

179 R: Yea::h.

180 C4: but...

181 R: Very effective perhaps though.

182 C4: Yea:h.

183 R: Mm hmm (.) great (.) um: (.) let's see (.) oh I was talking about salience, is important in my study.

184 C4: Salience?

185 R: Yes salience (.) I'll define what I think it is: =

186 C4: =Mm hmm.

187 R: because I don't (0.5) I'm not really too familiar with it but, it's u:m:: (0.5) it stands:: fo::r (.) u:m:: (.) a gesture or a sound that stands out relative to its neighbour:: gestures or sounds.

188 C4: Okay.

189 R: So (.) sort of li::ke u::m...

190 C4: A sforzando?

191 R: Yeah, yeah a sforzando=

192 C2: =Yeah.

193 R: yeah would be one, because it's (.) sort of soft perhaps for (0.5) and then all a sudden a loud moment and then soft again, um: (.) or also um: (.) I guess in gestures, it could be:: (0.5) um: (.) sort of, you know, not much is happening (.) then you show a big cue:, and then not much is happening anymore (.) um:: (.) so gesturally it could be like something you do in your movement that makes something like (.) really stand out compared to what you did before

194 C4: Yeah.

195 R: and after. So: um: (.) how do you feel a conductor can use this idea of salience to his or her:: (.) in his or her movement to his or her advantage?

196 C4: That's also a-a diff..difficult question to put into words=

197 R: =Mm hmm.

198 C4: to-to a:: answer u::m::...

199 R: I guess more (.) I'm interested mostly on what you think on the movement side. How can you use this idea of making something stand out to your advantage as a conductor?

200 C4: Well I mean obviously you could uh (.) could use it to-to, to form the piece to give it the structure that you feel it needs=

201 R: =Mm::.

202 C4: to e:: to really be able to uh (.) to give to-to grade e::: grade climaxes

203 R: Mm::.

204 C4: e::m...

205 R: Show those peak moments (0.5) mm: hmm.

206 C4: yeah and also just (0.5) show the unexpected uh (.) or the-the small unexpected moments in the middle of the music (.) elsewhere as well.

207 R: Mm: hmm (1.0) little nuances and...

208 C4: Yeah.

209 R: Yeah (0.5) mm hmm. Do you think um: (0.5) and it may not be true for everything (.) but, do you think your movements are spontaneous and occur directly in the moment (.) or:: (.) and or:: (.) or both maybe (0.5) do you (.) are there times when you think ahead (.) to:: (.) in your mind (0.5) to the sound moment and sort of pre-plan your actions?

210 C4: U::m::...

211 R: So two questions I guess.

212 C4: Yeah-yeah yeah (.) well I mean um: (.) I-I I have a general idea before I conduct in front of the orchestra obviously of-of how I want it to be, but at the spur of the moment I-I might probably be spontaneous and do something (.) also I mean if one section needs it=

213 R: =Yeah.

214 C4: that I didn't anticipate e:: then I will have to do something spontaneous (.) u::m::...

215 R: And you would know that from listening and hearing the sound?

216 C4: Yeah.

217 R: Mm::.

218 C4: E:: what-what was the second question again?

219 R: The second one was sort of like (.) um: [clears throat] you've done your score study and you sort of (.) you know what you want to do, you have an idea (.) and then...

220 C4: O::h yeah that one was (.)
that was the e:: pre-planning=

221 R: =Yeah.

222 C4: doing e:: (0.5) e::m: probably not as much as I sh::ould, I mean e:: (.) I mean that's: that's something you can always do better
ya know

223 R: Oh yeah yeah me too. [Giggle]

224 C4: plan (.) plan ahead like five minutes or fifteen, twenty.

225 R: Yeah (0.5) yeah and then in the music situation, let's sa:y you're in the musical
phrase and you're coming up on a big bass drum hit at the end of it, like a
couple bars before (.) are you already thinking about that moment (0.5) do you
fi::nd? Or:: are you kind of like um: (.) um: (1.0) do you (.) my idea (.) my
thinking is (.) do:: we as conductors, do we think okay (.) I see that hit coming
up I'm going to give a big right hand punch this time, or this time I might give a
big left hand punch. Do you ever think ahead to what you might throw in
before you get there?

226 C4: Um:: (.) yeah-yeah I think sometimes: e::m: (.) I-I sometimes try to e:: to-to (.) to let the music evolve

227 R: Mm::.

228 C4: and-and and let myself be surprised as well, even though I know it's there.=

229 R: Yeah.

230 C4: I let myself be surprised and then it would be simply spontaneous

231 R: Yeah.

232 C4: what movement I give u::m (.) u::m (.) I would I would probably
not do anything to the music before movement wise

233 R: Mm:::.

234 C4: em:: (.) well I mean I would give the upbeat of course

235 R: Mm: hmm.

236 C4: but I wouldn't (.) start (.) ya know like (.) prepare yourself.

237 R: Mm: hmm.

238 C4: I::f-if the music was really like (.) any single one idea (.) dying off, and then suddenly a (.) a bass-bass drum hit or something (0.5)
um:: (1.0) yeah I think that's the one (.) what I (.) what can I say?=
239 R: =Yeah [laughter] it's a tough one, because (.) you know, we do:: like (.) do these things in the moment, and we never really think
about (.) why or how we do them (0.5) it just happens because we do them. [Laughter] Um:: okay, so now we're going to talk about
the accuracy testing

240 C4: Yeah.

241 R: an::d um:: (.) um: (.) just get your thoughts about it. So I'll just go very methodically through the parts, um:: (.) uh: do you think
your score, now I don't have your scores today, but (.) do you think your score improved (.) um: (.) from the first time we did it in
the lab, to the second time, like in the few weeks later, having done the motion capture sessions in between?

242 C4: Um: (0.5) I-I actually felt that my first one went better

243 R: Hm:::.

244 C4: then-then my second one.

245 R: Your first session?

246 C4: Yeah my first a:::.

247 R: Oh, your first accuracy test?=
248 C4: =Yeah my first accuracy test, yeah.

249 R: Hm:: (1.0) yeah.

250 C4: Um:::.

251 R: Any reasons why?

252 C4: Um: (1.0) they were easier. [C4 and R laughter]

253 R: The first time your felt it was just a bit easier? (0.5) And the second time harder?

254 C4: Yeah, probably, but-but I mean the second time (.) um: (.) I was just wondering where, Conductor Five and I were, where we were in
the test the second time as-as:: the new one, the new um: (.) so you have, you managed to (.) to put around our (.) our, you know like
(.) u::h

255 R: Oh yes, yes you were.

256 C4: our motions

257 R: Yes.

258 C4: from Monday.

259 R: Yes (.) yes, you know how I did it is, I'm glad you asked me this, um:: (.) I used the same accuracy test both times (0.5) and all of the
clips were taken from the first motion capture session. So this last um: (.) accuracy test that you did, was the same accuracy test you
did before (.) just the clips were randomized. I just mixed them up.

260 C4: Oh, okay.=

261 R: =So you and Conductor Five were still in there

262 C4: Okay.

263 R: as well as the others. So I didn't change the accuracy test, I um: (.) I kept the accuracy test the same.=

264 C4: =Okay.

265 R: I just shuffled the slides:: so that you'd be identifying the same answers to the same clips, but in a different order (.) so...

266 C4: Okay.

267 R: Yeah (.) so you were in there both times basically.

268 C4: Yeah, but the second motion capture uh:: was not in there?

269 R: Right.

270 C4: Yeah.=

271 R: =And I did that um:: (.) to keep it very:: I guess linier to say, you know, because I'm comparing how you did (.) with um: (.) the test, being the same. You had the motion capture, the two um: (.) motion captures um: (.) or the motion capture learning sessions in between, but um: (0.5) as maybe that would help you to do better on the test (.) but...

272 C4: Yeah, okay.=

273 R: =Yeah (.) yeah, so I didn't change the um: (.) excerpts in the second conducting um: (.) test.

274 C4: Yeah okay.

275 R: Yeah. [Laughter]

276 C4: Um:: (.) well um:: (1.0) yeah I-I, I think I felt that the fir::st time (.) it went better, but um:: (.) also the second time I (.) I recognized some of the movements I think and

277 R: Hm::.

278 C4: um:: (.) some of them I recognized for myself.

279 R: Yeah.

280 C4: And some of them I-I felt that it (0.5) w::as pretty-pretty obvious.

281 R: Yeah (.) they were getting clearer to you (.) in your mind?

282 C4: Yeah-yeah.

283 R: Oh good (.) um:: (.) great (.) uh let's see, um: (.) oh I want to ask you:: (0.5) some questions about difficulty.

284 C4: Mm hmm.

285 R: In um: (.) in the accuracy test you were asked, in Part One, you were asked to listen to three audios (.) and then watch one video gesture, or:: watch one video gesture [laughter] and then listen to the three audios (.) and select the sound (.) that best fit the gesture.

286 C4: Yeah.

287 R: Which way was easier for you? Was it (.) see (.) hearing the three sounds and then watching the gesture (.) and connecting them, or:: (.) watching the gesture and then hearing the three sounds?

288 C4: Um:: (1.0) there is not too much difference, but I think maybe that the (.) easiest thing is, is seeing the gesture first.

289 R: Hmm.

290 C4: Simply because then you only have to remember one thing.

291 R: Mm hmm.

292 C4: And when I see the gesture I think, this is probably that piece of music

293 R: Mm hmm.

294 C4: and::, and then I just have to::...

295 R: Connect them?

296 C4: Yeah, listen to one of the three, bu::t when you have to remember all three (.) of the music clips.

297 R: It's a lot.=

298 C4: =And then, and then suddenly (.) the uh (.) conducting gesture might be two of them

299 R: Yeah. [Laughter]

300 C4: and then you...

301 R: [Laughter] Yeah, very good, thank you (.) and then um: (.) the same, I'll ask you the same for:: um: (.) the second Part Two, in Part Two you watched (.) um: (.) three videos:: (.) and then listened to one sound (.) and then:: or, the next part you would listen to one sound and watch the three gestures, and select the gesture that best fit the sound. In that case, which one was:: um: (.) the one, the more (.) difficult one?

302 C4: Uh I think (.) the-the same criteria probably apply there as well.=

303 R: =Mm hmm: (.) so you, you felt, you preferred (.) to (.) um::...

304 C4: I didn't prefer, it-it was, it was just easier. I-I don't think that (0.5) one was (.) it was (.) that much easier.

305 R: Hmm.

306 C4: It was just um:: (.) more help-helpful. It was easier, but...

307 R: To-to watch the three gestures and then hear the sound?

308 C4: Yeah, but I-I they were both possible, you know.

309 R: Mm hmm, yeah [laughter] yeah, oh yeah definitely both possible. [Laughter] Great, and then in Part Three (.) you watched um: (.) three different (.) audio gesture combos (.) and you had to select the: gesture number that (.) made the most auditory and visual sense (0.5) like (.) the-the best fit um: (0.5) yeah, uh (.) my question I guess would be, what were your thoughts when you had to do that?

310 C4: Um: (.) I thought that was tricky for us.

311 R: Yeah. [Laughter]

312 C4: Um: (0.5) sometimes I mean I (.) based on what I had seen before, and what I had-had identified, I had to trust that (.) that movement was that sound. See what I mean?

313 R: Mm hmm.

314 C4: Um: (.) but sometimes (.) it was the same movement, but the (.) the sound kept on going or::: they were, they were not quite in tune with-with each other

315 R: Mm hmm.

316 C4: but (.) it might still be the one that fit the most (.) but I-I still knew it, at least it was the same, it was the right gesture, or the right audio. (1.0) Um: (.) so-so sometimes it was really-really tricky.

317 R: Mm hmm (.) mm hmm (.) I found that as well. (1.5) Alright (.) we're um: (.) don't worry we're nearing the end of all these questions. [R and C4 laughter] I'll just double-check our timings (.) to make sure I don't take you overtime. Oh, we're doing great (.) um: (0.5) there is a really, in concert performance I mean (.) there is this um: (.) funny paradox in my work, and I'm going to describe you two scenarios and then I want to get your thoughts on that. So (.) the first one is (.) where the gestural landscape in a conductor is so:: beautiful (.) expressive, and contains like (.) affective qualities (.) y::et (.) the ensemble or orchestra plays so:: blandly without any musical shape or phrase or expression or affect. So that's one, and then the other scenario is:: sort of the opposite of that (.) um: (.) where the ensemble plays beautifully with phrasing:: and affect, and changes their timing:: and amplitude, and yet the conducting is bland and boring and (.) simply a beat pattern with little else going on. (1.0) And so (.) I guess my question is (.) um:: (.) why do you think these two occur? What breaks down in this sort of communication, or what factors might cause these occurrences?

318 C4: Um: (.) I never experienced the first one, I don't, is it even possible?

319 R: Oh:: that the um:: (.) first one, where the gesture and the conductor are really beautiful and the ensemble plays boring?

320 C4: Yeah (.) um::...

321 R: That one is probably less:: (.) happens less.

322 C4: I think that would be a::: deliberate (.) thing that the, that the orchestra doesn't like the conductor [C4 and R laughter] um::...

323 R: True.

324 C4: That, or that the um:: (.) the ensemble simply is really unresponsive.

325 R: Hmm.

326 C4: Or (.) yeah, I:: think that (.) um: (.) I think the second is very possible, I mean not always in a negative way. I know that () really conducted (.) as mad and as (.) as vibrantly as he could in rehearsals and then (.) went really (.) bland

327 R: Hm:::.=

328 C4: =in-in concerts, but I mean if you listen to the recordings they're still (.) red hot with intensity.

329 R: Yeah. [Laughter]

330 C4: Um:: (1.5) so I-I don't, would-would that be-be a negative thing that the conductor does nothing?

331 R: No I don't think it's negative at all. I just think it's an occurrence that happens where um: (.) and perhaps you're right, I mean it (.) perhaps is tied to what happened in the rehearsal.

332 C4: Yeah.

333 R: And I suppose we're talking about this-this thing, or what I would call two things (.) um:: minimalism and conducting (.) uh (.) which are tied to salience, only showing the moments that change and are really impactful. Also, I guess over-conducting which is showing so:: much emotion and romantic imagery that it's over the top and...=

334 C4: =Yeah, I mean that could have probably happened in the first example, that the conductor (.) that they simply just (.) um:: (0.5) didn't respond anymore

335 R: Mm hmm.

336 C4: but um:: (.) I think they would probably give something.

337 R: Hmm (.) yeah and I don't, and it's funny because um:: (.) we talk about these things, and (.) I don't think like (.) minimalist conducting by any means is:: um:: (.) negative. I think um: (.) well this is my own opinion, so maybe I shouldn't put it into the interview but, since we're talking about it (0.5) is that (.) the more advanced that the players are and capable of playing expressively, sometimes the um:: (.) they don't always want to be shown everything to the letter=

338 C4: =Yeah.

339 R: because you know, they want to make the shape, they want room to-to do it, and-and the conductor can be a guide and you know, smile, offer encouragement, and-and you know (.) be right there with the musician, but he doesn't, doesn't necessarily have to um: (.) show the phrase all the time because the players will do it (0.5) and um:: (.) and then of course in concert performance with the whole element of the audience (.) too

340 C4: Yeah.=

341 R: =where (.) um: (.) are we thinking at all (.) as a conductor (.) about what the audience is perceiving of our motions and, is-is our motion purely for the players, or is it also tied to: this:: audience? Which that's a personal thing you know, you don't have to answer if you don't want [laughter] but, but (.) there are a couple more (.) you know, dynamics at play, but (.) but um:: (0.5) yeah I guess I find in a lot of um: (.) um: (.) school teachers in:: in, where I'm from, that they um:: (.) just, they just do a beat pattern, there is nothing else.

342 C4: Yeah.

343 R: And I wonder why (.) you know?

344 C4: Yeah, I mean that's-that's too minimalistic uh (.) at least at that-that level.

345 R: Yeah.

346 C4: You can't expect school children to (.) to simply phrase
 347 R: Yeah.
 348 C4: without any encouragement.
 349 R: Yeah (1.0) yeah I don't know if it's tied to training like (.) the lack of training in a school teacher, where I'm from you just get two courses of conducting in your undergrad degree (.) if you're not doing a Conducting Performance degree, you just get you know, a Music Education degree (0.5) you have two: half courses in conducting, and they probably do beat patterns and not much else, and then (.) that's sort of how every conductor looks [laughter] who teaches maybe in jun-junior high and high school. High school teachers might sometimes be a little more expressive, but not always you know.
 350 C4: Yeah.=
 351 R: =But (.) they're great teachers, they can talk about the music and what they want, they can tell the students to play louder and to play softer and to (.) do this line like this, but they never show it. [Laughter] And I don't know why [laughter] but, it might be linked to training (.) I'm not sure.=
 352 C4: =Yeah.
 353 R: But, anyway (.) um:: (0.5) do you feel coming into the motion capture lab, and-and be honest because I mean you know, you've been so honest in this interview, and it doesn't hurt my feelings if you say no. [Laughter] Um:: (.) do you feel that coming into the motion capture lab and participating in the study (.) has changed the way you think about your movements::? And then also (.) do you think that being a part of this, has changed the way you listen to these key sound moments found in marches? (1.0)
 354 C4: Um: (.) to some degree (.) I think I would have to say.
 355 R: For movement and sound or for?
 356 C4: Um: (1.0) both, I-I mean probably the greatest um: (.) thing has been just I have (.) increased my awareness of (.) maybe not that I have increased my (.) my proficiency, technical proficiencies in-in the (0.5) those too, but um: (.) I still think that I've (0.5) gained a higher awareness of-of the subject and that, that will inevitably help me (.) inevitably.
 357 R: Mm hmm.
 358 C4: Help me to-to conduct them.
 359 R: Mm hmm (.) absolutely, absolutely (.) and um: (.) I'll just um:: (.) make sure that I (.) hit every question (.) um:: (.) I just have to go over here and double check my other ones. [Laughter] I should have had this sheet printed, but (.) um:: (1.0) let's see (1.5) oh, I never:: thought to ask you, had you ever conducted any of these marches, any of these four marches before?
 360 C4: Um: (.) no.
 361 R: None of them, okay (.) and um: (.) um: (.) what (.) let's see, oh, what factors influenced your decision to take part in this study?
 362 C4: Um::...
 363 R: Like (.) Per Sigmund invited you::? Or um...
 364 C4: Yeah.
 365 R: Yeah.
 366 C4: Yeah.
 367 R: Great (.) and um:: (0.5) which (.) which emblematic gestures do you fin::d um:: (.) the easiest to put into your conducting movements? The-the four that I:: had in my study were sort of the little dab gestures, the gliding gestures, and the press gesture and the punch gesture. Those were kind of the four that I was looking at, do you find them:: all pretty okay to (.) put in as cues or moments?
 368 C4: Yeah-yeah probably (.) yeah.
 369 R: Great (.) um: (1.0) oh, has this study improved your own: connection between the elements: of expression found in the score and the movements you choose to convey (0.5) the musical content?
 370 C4: Hmm: (.) tough question.
 371 R: Hmm.
 372 C4: Um::...
 373 R: Or maybe I could rephrase it and say, next, the next score you have to prepare for your laboratory orchestra, will you approach it differently (.) your movement and the sound?
 374 C4: Um:: (.) I don't think my (.) initial approach will be that much different, but the way that I rehearse and eventually work with it=
 375 R: =Mm hmm.
 376 C4: it will, it will be there as (.) as a part of what I think, but the (.) the approach, I mean my general mus::ical (.) thoughts I don't think would be much different.
 377 R: Great (2.0) um: (.) how has this study:: changed your understanding of conducting:: if any? [Laughter]
 378 C4: Um::... (3.0)
 379 R: That's a tough one (.) it's a big question. Um:: (.) I suppose uh (.) especially like (.) from where you are now (.) to where you are going to be: like (.) say by the end of this year, you know (.) after your whole first year:: of being in conducting, do you feel like um: (.) doing this little project was a good start (.) to your program?=
 380 C4: =Yeah, yeah.
 381 R: Okay (.) that's more what I'm after. [Laughter] Okay (.) and um:: (1.0) oh, do you consider yourself a better observer of these little action (.) moments? These little em-emblematic conducting actions, like (.) um: (.) in the accuracy tests when you were getting better at looking at those movements (.) and finding a sound in your mind.
 382 C4: Probably yes (.) I-I think so.

383 R: Great (0.5) um: (.) would you:: (0.5) based on you know, your work in this study, if I were to come back another year to Oslo
[laughter] um:: (.) which I imagine I couldn't afford to, but [laughter] um:: (.) but would you encourage other:: um: (.) student
conductors to:: um (.) to do this program and (.) and would you um: (.) encourage others to (.) to use these types of little gestures, if
you saw them just doing a beat pattern?

384 C4: Um:: (.) yes to both questions. I:: think, I mean if-if they just use a beat pattern then I would (.) encourage them to do something.

385 R: Yeah. [C4 and R laughter]

386 C4: Uh:: (.) but also (.) I really:: (.) I think the:: (.) that it would be (0.5) I would encourage them to-to join in this (.) on such a project as
this (.) because-because of the awareness thing.=

387 R: =Yeah::.

388 C4: Yeah.

389 R: Awareness is really huge. I call it kinesthesia, it's like you're awareness of motion, while you're in motion. (0.5) So it's like, I mean
not like, when you go and conduct and perform, it's not like we want you to think about every little thing about your movements while
you're moving, but doing a project like this, I find, or even when I'm in the motion capture gear, then my awareness of my own
movements while I'm moving is increasing. And then (.) I think that really helps for improvement. I have noticed it even in my own
progress. Um: (.) so (.) and uh (0.5) let's see::.(2.0) I guess let's see, I think that's pretty much all. (0.5) As: (.) as you progress this
year in your studies, I'm sure you'll be able to see like, you are able to communicate these sort of phrasing and shape ideas into your
gestures, and um:: (.) I guess my (.) um: (.) hopefully this study has helped you to get thinking about them and you know (.) the
execution might not be perfect yet, but um:: (.) get you: headed in that direction.

390 C4: Yeah.

391 R: Yeah (.) right on (.) so, before we adjourn, I just want to say thank you for your time and energy in the project and

392 C4: No problem.=

393 R: =and also, um:: (.) for your valuable insights:: here, because this is really important to me, these sort of dialogues about, you know

394 C4: Yeah.=

395 R: =the whole thing, and also um:: (.) um:: yeah, it has been a pleasure working with you, so thanks.

396 C4: Likewise.

397 R: Thanks (.) and um: (.) do you have any final thoughts before we adjourn [C4 and R laughter] and I can um: (.) I can get you a tea if
you want a tea for your...

398 C4: No-no I'm fine.

399 R: Okay [giggle] so any final thoughts?

400 C4: Um:: no (.) um:: (.) just that it's been a pleasure.

401 R: Oh good, well thanks. Thanks for being a part of it, it's been awesome. [Laughter] So thanks again (.) I'll uh (0.5) stop recording.
[Turns off the recording devices]

Conductor Five

- 1 R: [Starts the recording devices] So (.) welcome.
2 C5: Thank you.=
3 R: =The purpose of today is to:: just go over:: what we did in the motion capture lab together (.) and to:: get your thoughts on the accuracy testing that you did (.) and also to:: (0.3) I guess just go over some general things about conducting and get your:: thoughts on them (.) and your opinions on them. So (.) what I will be doing is (.) collecting:: the answers that everyone gives (.) to my questions:: and looking for:: um, some main:: sort of themes that comes out of the project. So, it is like I was saying before (.) this is being video recorded but (.) your video would, will not be used in any way (.) shape or form, it is just for my own personal record (0.5) and then the um (.) anything that you say (.) um:: (.) before it would get published or anything you would have (.) the right to look it over and say that that's (.) how you want it. Yeah (.) so we'll, so we'll get started. Please state your name in full, in Norwegian.
4 C5: Uh _____.
5 R: Great (.) and how old are you?
6 C5: Uh (.) I'm nineteen.
7 R: Nineteen, okay (.) and you're currently enrolled as an undergraduate student at the Norwegian Music Academy.
8 C5: Yes. (0.3)
9 R: Um:: (.) what is your area of study there?
10 C5: Uh (.) conducting.
11 R: Okay (.) and what year of your program are you in?
12 C5: First.
13 R: First year.=
14 C5: =So I just started.
15 R: Just started in August or September?
16 C5: In August.
17 R: Hmm (0.2) okay (.) an::d (.) have you taken:: any conducting courses before beginning:: (.) this:: (.) degree?
18 C5: Uh:: yeah (.) uh:: some short uh:: courses like in the Summer, a week at the:: (.) Summer camp (.) where I was studying conducting.
19 R: Okay, and where was that?
20 C5: Uh:: it was uh:: (0.5) the place?=
21 R: =Yeah, yeah, or what was it called?
22 C5: =Viken Folkehøgskole .
23 R: Okay.
24 C5: Um::: (.) um: (.) it's uh:: it's a band camp.
25 R: Yeah.
26 C5: Uh:: and:: i::f you want you can take the conductors course (.) and it's uh::
27 R: Oh:::.
28 C5: a lot more serious
29 R: Yeah.
30 C5: than just band camp, because band camp is for fun.
31 R: Yeah (.) and they, and so the conductors have a course, and is that based out of Oslo?
32 C5: Uh:::..
33 R: Or based out of uh, based out of another city?
34 C5: Uh:: what do you mean?
35 R: Like where they hold the camp.
36 C5: Uh:: the actual camp is not in Oslo, but-but the::: people are from Oslo.
37 R: Oh, okay. [Laughter] Very good (.) very good, and um:: (.) the conducting teacher there...
38 C5: Yeah.
39 R: Uh (0.5) who, who were your teachers?
40 C5: Uh, Helge Haukås.
41 R: Okay.=
42 C5: =Is his name.
43 R: Okay (0.3) and he works here in Oslo?
44 C5: Yeah, no I don't think he works:: here in Oslo (0.5) um::: (.) I don't remember actually where.
45 R: Mm:kay (.) great (0.3) an::d um::: (4.0) the (.) the summer camp is like a week long, but very intense, every day and...
46 C5: Yeah (0.5) um:: (.) we are of course not at the same uh, level of (.) how much we know, conducting. Some haven't had conducting at all=
47 R: =Oh, oka:y.
48 C5: before, an::d like me who (.) is actually studying it now (.) know a lot so::
49 R: Yeah.
50 C5: it's a lot of differences between (.) us.

51 R: Mm hmm (.) and what made you think about um:: (.) going into conducting (.) when you wer::e I guess in (.) high school, and then::
 (.) you thought about this, what made you?

52 C5: Uh:: (.) I don't really know. Uh:: (.) at first I just wanted to study clarinet.

53 R: Mm: hmm.

54 C5: Uh (.) but uh (.) I did know it's very hard to:: to enter (.) uh: (.) the Academy

55 R: Hmm::

56 C5: on clarinet.=

57 R: =Okay.

58 C5: Um:: (.) so I don't know if uh (.) if I have, if that was a possibility for me=

59 R: =Mm: hmm.

60 C5: but uh, I applied for both.=

61 R: =Oh, okay.

62 C5: I applied first for conductor=

63 R: =Yeah.

64 C5: and then under that for clarinet.

65 R: Right.=

66 C5: =So-so, uh (.) after time (.) I decided I would want to uh (.) try conducting

67 R: Oh great.=

68 C5: =and (.) but I:: I think it has something to do with uh, when I play in an ensemble

69 R: Mm hmm.

70 C5: or:: in my Symphonic Band.

71 R: Mm: hmm.

72 C5: Um:: and when you are the group leader

73 R: Mm: hmm.

74 C5: um:: I like to move, and like, show everything

75 R: Yeah.=

76 C5: =use the body.

77 R: A::h.

78 C5: It's not only playing, but using (0.5) the body.

79 R: Hmm (.) yeah (.) awesome. Well that's great (.) it has been such a pleasure to work with all of you guys form the Academy and (.)
 um, the five of you:: that must be in your first year, you know (.) together going through this (0.5) it has been a real treat so:: it has
 been great. In my field of sort of musicology, we talk about this notion of um: (.) tracing a sound, and (.) in some studies we actually
 have people (.) listen to music and (.) with a pen and a (.) pad (.) you know, make drawings and (.) draw to music. Do you feel that
 your (.) um:: gestures and emblems that you do, in your movements that they are done or performed with an intension of (.) um:: (.)
 tracing or drawing the sounds, soundscape?

80 C5: Yeah, uh:: I think that's (.) what conducting is about (0.5) uh:: (1.0) m::: but it depends like, we just learned about strings=

81 R: =Yeah.

82 C5: and how to conduct strings...=

83 R: =Hmm::

84 C5: and then we have to move like they move

85 R: O::h.

86 C5: but, but that's not how the music moves, it's how the violin moves.

87 R: O::h.=

88 C5: =So I don't think that's the same.

89 R: No.

90 C5: But, uh:: and of course that's uh (.) a lot easier to think (.) uh how a violin moves then how (.) a clarinet moves.

91 R: Oh yeah, yeah-yeah.

92 C5: You can't conduct
 like a clarinet=

93 R: =Oh yeah, right.

94 C5: cuz it doesn't make any sense.

95 R: Mm: hmm (.) oh this is really intriguing (0.5) so your movements would reflect sort of the bowing:: or some of the...

96 C5: Yeah (.) the bowing (0.3) and-and,
 the teacher showed us actually that
 you can, show them (.) play like
 this=

97 R: =O::h.

98 C5: while you are conducting

99 R: O::h.

100 C5: so:: (.) so you can instruct them.

101 R: Yes, so you are giving more information than just (.) other things. You're also showing (.) how much pressure

102 C5: Yeah.
 103 R: to put on the string.=
 104 C5: =Yeah (0.5) especially he talked a lot about pressure and
 105 R: Hm:::
 106 C5: and of course which way the bow goes.
 107 R: Oh, yeah (.) I would have never thought about that I suppose. So if you want a down bow then you would be giving sort of a downward gesture?=
 108 C5: =Yeah (0.5) but of course he also talked about that you can't control the grip, and
 109 R: Mm: hmm. [Laughter]
 110 C5: and of course (.) they are, they are the (.) the string players (.) they knew more than I did.
 111 R: Right. [Laughter]
 112 C5: [Laughter] So, so-so you have to kind of balance it and, and uh:: (.) uh:: the concertmaster or...=
 113 R: =Yeah (0.3) the concertmaster (.) yeah.=
 114 C5: =Yeah (0.3) yeah of course he's the
 115 R: Mm: hmm.
 116 C5: leader of the group
 117 R: Mm hmm.
 118 C5: not you.=
 119 R: =Yeah (0.3) yeah, well it's always good to remember that for sure, and keep it in the back of your mind. [Laughter] That's really insightful as a wind band conductor I never think about (.) the strings.
 120 C5: Yeah, uh:: I never focused on that before.
 121 R: I mean that's a really amazing idea, especially for orchestra (.) right?
 122 C5: Yeah.
 123 R: Yeah (0.5) um:: (.) what are some gestures, um (.) I have this thing... (.) why are some (.) gestures that we use (0.5) goo::d for:: or appropriate for a wide number of sounds? Like for example, like certain things that we do, we do a lot (0.3) and we might repeat that gesture, but it might go with a lot of different sounds. (0.5) Any ideas why this is the case?
 124 C5: Hmm::=
 125 R: Or what do you think about it?
 126 C5: Um::: (0.2) I don't really know, um:::
 127 R: It's a tricky one. I toil with it because::e...
 128 C5: Do you have a specific example?
 129 R: Sure (.) um:: (.) you know if we have this big uh:: (.) um: (.) sort of (.) bass drum hit or something.
 130 C5: Yeah.=
 131 R: =We had in the one piece ba da da, ba da da, ba da da (.) boom (.) and um:: (.) then you get a similar idea (.) in a different piece, but you have a different kind of sound, like you might have (0.5) yeah (.) ba da ba, ba da ba (.) whoosh (0.5) or something, but you might do the same motion.
 132 C5: Hmm.
 133 R: Why, do you know um:: (.) why do you think as:: um (.) conductors we (.) we would do that same (.) motion?
 134 C5: Um:: (.) I would say it's because it's the same feeling.
 135 R: Hmm.
 136 C5: It's not two different uh: (.) uh:: okay, it's two different sounds but not two different (.) feelings or (.) music.
 137 R: Hmm... so the um:: (.) notes and the rhythm can be different (.) but the feeling (.) is the same?
 138 C5: Yeah.
 139 R: So when the emotional (.) emotional characters are similar so we do the same.
 140 C5: Yeah (0.5) the character.
 141 R: The character (0.5) okay. Well yeah (.) and what is, what is that for you in music (.) character?
 142 C5: Uh:: a character is uh:: (.) maybe (.) what music is all about
 143 R: Hmm.
 144 C5: and (.) I sometimes think that you can uh:: (.) share music at the two parts.
 145 R: Oh?
 146 C5: It's technique
 147 R: Mm hmm.
 148 C5: and (.) music or (.) um (.) as you said, um:: (0.3) ah::
 149 R: The emotional or expressive side?=
 150 C5: =Yeah (0.5) the expressive side.
 151 R: Hmm (.) cool.
 152 C5: Sometimes I think like that.
 153 R: Mm hmm.=
 154 C5: =So, so when (.) when you are instructing (.) you sometimes instruct technique
 155 R: Mm hmm.

156 C5: and sometimes you instruct or conduct (.) music

157 R: Hmm::

158 C5: or it's (.) the expressive part.

159 R: Mm hmm (.) and for you is the expressive part linked to:: emotions and feelings?

160 C5: Yeah, I think so.

161 R: (1.0) Cool (.) what are some (.) um:: (.) parts or properties of sound that change frequently (.) and maybe require an action to encourage them (.) the player? So what I'm thinking of is (.) what are the parts of the sound that often change (.) in the music (.) that maybe make a, make an action?

162 C5: Like part of the sound?

163 R: Like um:: (.) a forte piano let's say.

164 C5: Uh::...

165 R: So, in the sound the (.) forte piano (.) the sound changed. So we had, sort of like (.) a volume change where it was (.) really soft and forte, and then piano (0.3) so perhaps a conductor might do a movement (.) to (.) really reinforce that. Are there other parts of sound (.) other than like volume that change in music (.) that cause us to move?

166 C5: Ah:: (1.0) yeah (.) um:: (.) the::, the actual:: (.) s::ound of the, the s::oftness

167 R: Hmm.

168 C5: perhaps.

169 R: Mm hmm.

170 C5: Or, or, not volume in (.) how loud it is=

171 R: =Mm hmm.

172 C5: but volume in (0.5) um::

173 R: =Hmm.

174 C5: in the (.) the type of sound

175 R: Mm hmm.

176 C5: like the texture.=

177 R: =Oh yeah (.) yeah, okay. The thickness or

178 C5: Yeah.

179 R: the thinness.

180 C5: Yeah.

181 R: Okay (.) mm hmm, yeah that changes (.) for sure (.) I know sound is such an intriguing thing because it's really um: (.) there's so much going on in it, you know?

182 C5: Yeah.

183 R: (2.0) Great. (1.0) Do you think some of our emblems, and by emblems I mean these little (.) major sounds moments, like a cymbal crash or a bass drum hit, or a little um:: (.) a little moment, ba da dee [sung rhythm] you know (.) those kind of things (1.0) um: (.) do you think that (.) um: (1.0) when we conduct (.) a sound moment (.) that, that it's (.) sort of (.) hardwired to a particular (.) movement? By that I mean I guess (.) are some of our gestures link to the sound that it goes with?

184 C5: Uh::...

185 R: In our minds do you think we

186 C5: Yeah.

187 R: we link them up? That's what I'm getting at I think. [Laughter]

188 C5: Probably (.) uh:: (.) you mean like if there's uh:: (.) if there's like a cymbal crash and I automatically do a movement=

189 R: =Yeah.

190 C5: without having to think?

191 R: Right.

192 C2: That would probably be because I practiced it

193 R: Hmm.

194 C5: a lot

195 R: Hmm.

196 C5: so that the brain (.) obviously sees that it has to be like this.

197 R: Mm hmm (.) so the study beforehand?

198 C5: Yeah.=

199 R: =Studying the score you mean?

200 C5: But also studying (.) before other scores

201 R: Mm hmm.

202 C5: with the same kind of (.) sounds or feelings.

203 R: Mm hmm.

204 C5: Uh::...

205 R: Yeah (.) and then that study (.) by studying in the score part, do you move when you study, or just look at the music and think of the sounds?

206 C5: Uh, I think it's very hard to:: to uh, study a score by just reading (.) the:: the music

207 R: Mm hmm.

208 C5: uh::: I like to (.) move a lot, but, but of course you have to study it.

209 R: Mm hmm.

210 C5: The::n, but conducting is about the movements so::...=

211 R: =Mm hmm (.) about practicing the movements and planning ahead what you might do.

212 C5: Yeah.

213 R: Yeah.

214 C5: Um::: (.) but I, I think it's the same with uh:: how:: I (.) I play.

215 R: Hmm.=

216 C5: =If I (0.3) practice and I always play something (0.3) wrong

217 R: Mm hmm.

218 C5: from the first time

219 R: Mm hmm.

220 C5: and all, all the other triads I will always play, play them wrong because

221 R: Mm hmm.

222 C5: I played it (.) wrong the first time.=

223 R: =Oh:: (.) okay.

224 C5: Then I will (.) then I have practiced it wrong.

225 R: Right (1.0) right.

226 C5: Like if, if you didn't care much about the, the-the part that was wrong

227 R: Mm hmm.

228 C5: and it's uh, it's the same with conducting, but it can be something good or something bad.

229 R: Mm hmm.

230 C5: So maybe if you:: like a, a punch or a:: (1.0) cymbal

231 R: Mm hmm.

232 C5: uh:: part (.) uh:: if, if you had practiced it from the beginning like, legato or something soft=

233 R: =Mm hmm.

234 C5: then I think you, automatically you would (.) conduct it soft

235 R: Hm::.

236 C5: which would be very confusing

237 R: Mm hmm.

238 C5: for the (.) players but, that's how you practiced.

239 R: Mm hmm (.) and then I guess in the actual (.) when you hear the sound (.) then I suppose it would cause you to make a change if something in you didn't (.) make sense I suppose.

240 C5: Yeah.

241 R: Yeah.

242 C5: But uh (.) wha::tever movements you do, uh:: it's um:: (2.0) it's probably automatic

243 R: Hmm.

244 C5: but, but it's (0.3) because of what (.) what you practice. If you practice it wrong

245 R: Mm hmm.

246 C5: maybe the musicians won't (.) get it (.) what you're trying to do.=

247 R: =Mm hmm (.) no, yeah (.) good point. The communication is:: less then.=

248 C5: =Yeah.

249 R: Yeah (1.0) like um: (.) I was talking about that (.) one bass drum hit (.) this um: (.) ba da da, ba da da, ba da da, boom [laughter] and, and we do like a big movement attached to that. In creating these types of movement that occur (.) in these sound moments, do you think about your movement as having:: three different dimensions? As being like, x, which is like backwards and forwards (0.5) and then um:: (.) the y-axis, which would be the right and then left, and then the z, up and down? Do you think, maybe not in the moment you don't think about it, but (.) as a conductor, and studying conducting, do you think (.) about this whole, that you have this whole space to use?

250 C5: Yeah, um::: of course I don't think about them as an axis

251 R: Mm hmm.

252 C5: but uh::: (.) in, in our study, we uh:: have been working:: some (.) with um:: (1.0) uh, how you conduct (.) uh (.) compared to where the orchestra musicians sit.

253 R: Oh::: (.) oh talk to me about this

254 C5: Cuz, cu::z...

255 R: talk to me about this.

256 C5: the bass players

257 R: Yeah.

258 C5: uh, they are far to the right.

259 R: Mm hmm.

260 C5: So they, they can't see:: the:: (0.3) side movements perhaps
 261 R: Okay.
 262 C5: as, as, as good as those who are sitting right in front of you.
 263 R: Right.
 264 C5: But of course the conductor is moving, so if he needs to conduct something (.) directly at them, he will move.
 265 R: Yeah.
 266 C5: But, so we have to have the right movements (.) but bow up and down, and also to the sides.
 267 R: Oh::.
 268 C5: Um::...
 269 R: (2.0) Any other positions in the orchestra you talked about?
 270 C5: Yeah (.) we:: also talk about (.) a lot of (.) height.
 271 R: Hmm.
 272 C5: Um:: (1.0) because many conductors conduct very high
 273 R: Yeah.
 274 C5: an:::d that can be:: um:: (.) very tiring on the body
 275 R: Yeah.=
 276 C5: =cuz on the shoulders
 277 R: Yeah.
 278 C5: uh:: but that's not about the:: (.) communication
 279 R: Hmm.
 280 C5: that's more about (.) the conductor.
 281 R: Yeah.
 282 C5: Um:: (1.0) uh:: (.) but sometimes the::y uh, I think they:: mostly tell us to do more (.) side movements
 283 R: Hmm::.
 284 C5: an:::d even though I just said that they basically want it.
 285 R: No, it's okay, it's okay.
 286 C5: Um:: and I:: I don't know (.) why:: that is
 287 R: Yeah.
 288 C5: but we (.) we students (.) do a lot of (.) movements up and down
 289 R: Uh huh.
 290 C5: more than (.) side movements.
 291 R: Side movements (.) mm hmm (.) maybe encouraging you to come out a bit more.
 292 C5: Ah, yeah.
 293 R: Yeah.=
 294 C5: =So:: (.) so maybe we're not using all the space.
 295 R: Uh huh.
 296 C5: Um:: I also remember at the summer camp that uh:: many conductors teach you that (.) you're not suppose to cross your hands
 297 R: Oh:: yeah.
 298 C5: cuz that can be confusing.
 299 R: Yeah, right.
 300 C5: Um:: (.) but I also learned that you, you can't (.) you must not make a barrier (.) between your hands
 301 R: Mm hmm.
 302 C5: cuz then, cuz then you lose a lot of space.
 303 R: Oh:: okay (.) yeah.
 304 C5: =Um::...
 305 R: Because we could maybe give a cue over here.
 306 C5: Yeah.
 307 R: Yeah, with this hand.=
 308 C5: =Yeah (.) but, but actually crossing them (0.5) I have, I learned it is not a good idea.
 309 R: No no.=
 310 C5: =But, but as Per Sigmund just, just told me, you (.) have to do it sometimes
 311 R: Yeah.
 312 C5: cuz it, cuz it, you (.) can't make that barrier
 313 R: Yeah.
 314 C5: between your hands.
 315 R: Good point (.) yeah, and yeah, you don't want to set up um:: (.) a sort of (.) um:: (1.0) yeah, you don't want to set up an imaginary barrier that would
 316 C5: Yeah.
 317 R: restrict you from having to do it if you needed to
 318 C5: Yeah.=

319 R: =throw a cue over to the basses (.) when you are looking at the trumpet, or something (0.5) yeah, good point. Is um:: (.) in the sound moment, I'm just going to describe a couple moments, and then you tell me, maybe you can show me what action you might do, or you can also just talk to me about what actions you might do or (.) maybe a couple actions (0.5) if the sound moment is rising in pitch (.) like (.) um::: (.) either like a scale:: like do du da da da dee [sings scale] or something or:: also like (.) do::: [sings ascending pitch glide] or something, something going up (0.3) and um:: (.) are there, what kind of ways could we reflect that?

320 C5: Um:: (2.0) you could increase the intensity.

321 R: Hmm.

322 C5: Cuz (.) a::: (.) a normal phrase that goes up

323 R: Mm hmm.

324 C5: would be:: maybe an automatic crescendo.

325 R: Mm hmm.

326 C5: Uh: (.) especially (.) when I play the clarinet, I always think (.) decrescendo on the way up, so that the dynamics will be (.) the same cuz of the, cuz uh, the-the high notes make more noise.

327 R: Mm hmm.

328 C5: The same if I, if I play down (.) I have to play louder

329 R: Hmm.

330 C5: to keep it the same=

331 R: =Hmm.

332 C5: But if uh, if uh I play a phrase that's supposed to be (.) phrased=

333 R: =Mm hmm, yeah. [Chuckle]

334 C5: then I, then I (.) just let it (.) go

335 R: Yeah.

336 C5: let it flow (.) um:: (.) the question was how would I conduct it?

337 R: Yeah.

338 C5: Um:: (.) I have learned that you can (.) conduct simply by (.) following (.) the, the notes up

339 R: Oh::.

340 C5: and raising your hands.

341 R: Yes.

342 C5: But of course, then you might (.) end up

343 R: Here?

344 C5: high.

345 R: So then you have to do something.

346 C5: So (.) so (.) so I::.

347 R: So I guess the next question would be, once you're here, then if the sound is falling in pitch or is a scale that goes down, how would you then, you know...

348 C5: Yeah.

349 R: what actions would bring you back down?

350 C5: So, so for example (0.5) if I were:: to warm up, warm up a Symphonic Band

351 R: Yeah.

352 C5: and then they would play a scale

353 R: Right.

354 C5: uh:: then I might use the

355 R: Hmm.

356 C5: bringing the hands up. [Demonstrates the gesture]

357 R: Hmm.

358 C5: Um:::...

359 R: And come down as the scale comes down?

360 C5: Yeah (.) but also we have to think (.) the other way

361 R: Yeah.

362 C5: I think.

363 R: Uh huh.

364 C5: Like I said, I (.) when I play decrescendo

365 R: Mm hmm.

366 C5: or diminuendo

367 R: Mm hmm.

368 C5: uh, on the way up sometimes

369 R: Mm hmm.

370 C5: and maybe I have to conduct that way also, but I:: (.) I haven't really thought a:: lot about that.

371 R: Mm hmm.

372 C5: Um:::...

373 R: Yes, and that's a, I think good (.) in my opinion [laughter] which is only mine, that's the harder one to conduct I think (.) because you sort of um:: (.) there going up but (.) something in your movement has to tell them it's less.

374 C5: Yeah.

375 R: Yeah.

376 C5: So um:: (.) so (.) but maybe it's more about the intensity

377 R: Hmm::

378 C5: uh:: (.) but, it (.) it depends on what the music is (.) is it supposed to be more

379 R: Mm hmm.

380 C5: or less?

381 R: Yeah, good point (2.0) yeah (.) I suppose i::t depends on the decisions you made about it, right? An::d what it says in the music. [Laughter]

382 C5: And I, I also learned that uh:: (1.0) if, if you want to show a crescendo

383 R: Mm hmm.

384 C5: an:::d, and use your left hand just (.) like this. [Demonstrates upward movement]

385 R: Yeah.

386 C5: Uh:: then you, you might not have enough space here

387 R: Right.

388 C5: uh:: but, but then I learned that if you're here, you can start moving forward.

389 R: Oh, start a little bit back, and then move it forward like this? [Demonstrates a movement away from the body and then the upward movement]

390 C5: Yeah (.) you don't have to start uh:: (.) yeah, uh, yeah maybe

391 R: Okay.

392 C5: uh, but, but the point is that you, you start going forward and then up, cuz then you have a lot more space

393 R: Oh:::.

394 C5: and the musicians will, will=

395 R: =Surge?

396 C5: see this as, as a

397 R: Crescendo?

398 C5: crescendo.

399 R: Oh:: this is neat.

400 C5: So then you have a lot more space.=

401 R: =To go

402 C5: Yeah.

403 R: rather than you get up here and you're done. [Laughter]

404 C5: Yeah (.) yeah because you can always do this slower

405 R: Right.=

406 C5: =but then, it might not have the same effect because you to have movement.

407 R: Oh right

408 C5: At least that's what I think.

409 R: to show it (.) hmm (.) this is really neat, I've never really thought about that first and then coming up.

410 C5: Yeah.

411 R: Mm hmm:: (.) great, and then...

412 C5: [Cell phone vibrates] Oh.

413 R: That's okay. [Laughter] (3.0) I was thinking about (.) um:: (.) on the way down, do they give anything like (1.0) for that or just come down slower maybe?

414 C5: Uh::...

415 R: Or do they say like pull back and then down? Or anything like...

416 C5: No (.) I don't...=

417 R: =No, just perhaps come down slower? [Laughter]

418 C5: Yeah. (.) I think you have to go the same way up, so if you go (.) up, and then up, you have to go down first and then maybe, yeah.

419 R: Down:: and then (.) back.

420 C5: It (.) it it...

421 R: Oh:: (.) oh, that's cool.

422 C5: Yeah, cuz (.) cuz that's natural, if, if you see a lot of conductors

423 R: Yeah.

424 C5: if it's supposed to be a piano

425 R: Uh huh.

426 C5: piece, they do it like this. [Demonstrates pulling back ever so slightly]

427 R: Kind of pull back?

428 C5: Yeah (.) and then it's (.) very obvious that it's supposed to be small

429 R: Mm hmm.

430 C5: or (.) piano.

431 R: O::kay (.) that's really neat

432 C5: Hmm.

433 R: thanks. (0.5) If the sound moment is light and sudden (.) like um: (.) we were talking in that one song, or the one piece, I mean was um:: (.) starting out um (.) baya, baya, baya, baya, baya, baya, baya, baya: (.) ba da ya: (.) ba da yee [sings tune] that one (0.5) um:: (.) and so I call them little dabs::, but (.) um: (.) is that (.) what kind of things can you do for those little moments?

434 C5: (1.0) Um:: (2.0) you can do: (.) little gestures

435 R: Hmm::

436 C5: or small gestures

437 R: Mm hmm.

438 C5: for a small moment.

439 R: Mm hmm.

440 C5: So (.) they are matching, they are

441 R: Oh::.

442 C5: the same character (.) uh:: (.) I think (.) um:: (.) we've also learned that there is a different between the first time you conduct it with the (.) orchestra or the band

443 R: Right.

444 C5: cuz, cuz then they:: might not know all the notes and you (.) you have to conduct everything (.) uh:: but (.) maybe uh::, the part like that

445 R: Yeah.

446 C5: in the:: (.) maybe you could just (.) do (.) small movements (.) you don't actually have to do::=

447 R: A big pattern?=
448 C5: =Yeah (.) a big pattern.

449 R: Yeah, good point (.) especially after they've done it a few times and they have it.=

450 C5: =Yeah.

451 R: Yeah (.) scale back the pattern

452 C5: Yeah.

453 R: and then just show some little moments.

454 C5: Cuz, cuz the:: (.) the:: (.) many conductors just let it go, just (.) don't do anything sometimes cuz then the effect afterwards will be, will be a lot more like (.) if we're going to (.) if there is a part where:: um (.) where yeah, where you have this dayum, dayum, dayum, dayum (.) da yum (.) da yum.

455 R: Yeah.

456 C5: Then, then you (.) just stop (.) and then (.) do that I guess (.) the thing (.) so:...

457 C5&R: Yeah.

458 R: You know what you're describing is um:: (.) something that I call salience (0.5) and they use it in like (.) um:: (.) neuroscience or psychology (0.5) and it's um:: (.) what I define it as or what they said it is, is (.) it's um: (.) a gestu::re that stands out relative to its neighbouring (.) gestures (0.5) so it's something that stands out, but it stands out because of what came before and after it.

459 C5: Yeah.

460 R: So like you were just describing (.) you stopped (1.0) then you give another big gesture and then stop again. So, it's sort of like what happened in your movement before and after (.) made that really clear and really come out=

461 C5: =Yeah.

462 R: because it was what happened around it. And I guess there is salience in sound as well (.) where um: (1.0) like (.) for example (.) there is not much going in the music, and then that big moment, and not much in the music, you know...

463 C5: Yeah.

464 R: meaning like (.) notes and texture wise (.) but um: (.) do you, so::... (1.0) do you think that um:: (.) do you feel that a conductor can use (.) this idea of salience or what you described to his or her advantage then?

465 C5: (1.0) Yeah (.) uh:: I think it's a lot about (.) uh:: not using (.) using the body (.) too much or:: using it up

466 R: Hmm.

467 C5: cuz, cuz if you have
a::: forte (.) uh:: piece (.)
um:: (.) a very strong part

468 R: Mm hmm.

469 C5: then you might conduct really big (.) but if you afterwards have a fortissimo

470 R: Yeah.

471 C5: part, then you, you can't do it any bigger.

472 R: Yeah. [Laughter]
 473 C5: So, so you have to, you have to, you have to start it up, or maybe
 474 R: Yeah.
 475 C5: show them that it is supposed to be big=
 476 R: =Yeah.
 477 C5: but then, then they, they do it (.) without you having to tell them.
 478 R: Uh huh (.) so scale back (0.5) so start it in the way that you want it=
 479 C5: =Yeah.
 480 R: then scale back a little bit, so that later, in the next moment, you have somewhere to go with the large (.) with the size.
 481 C5: Yeah (.) but:: of course maybe they will (1.0)
 maybe they will see this as a going back (0.5) so I
 don't know how that that would...=
 482 R: =Well no (0.5) I think you're right. I think as long as you start them and then you just kind of relax a bit, they'll stay playing out at
 that level that they're at (.) um:: (.) I think most players, um:: (.) once they're at that level they'll stay there (0.3) unless they see like a
 big, you know
 483 C5: Yeah.
 484 R: where you're, where you shake your head no, and you really, you know (.) show them softer, but
 485 C5: Yeah.=
 486 R: =but they generally stay [chuckle] probably loud. [Chuckle] But, and perhaps you want to bring the music down before that other big
 moment (.) who knows. [Laughter] But no, I'm glad you brought that up (1.0) because I think out of all the conductors, I think in the
 gesture scores you were (.) um:: (.) scored the very highest with this like (.) what I call, emblematic specificity, which is this idea of
 showing the moment
 487 C5: Yeah.
 488 R: and bringing it out (.) in relation to the neighbour moments. So I think you were very clear (.) and um:: (.) I call
 that clarity of motion, but (1.0) when I talk to other conductors we always (0.5) some of us disagree with what
 clarity is [laughter]
 489 C5: Yeah.=
 490 R: =but to me that's clarity (.) where you just show, you outline these major moments and um:: (.) you were always very clear and I could
 tell from your gestures only, exactly where you were in the music (1.0) which I think is good conducting. (0.5) If can look like (.) um::
 (.) and uh:: skipping ahead to the accuracy tests a little bit (.) if I looked at your movements (.) of the four excerpts (.) I could always
 tell exactly which excerpt that you were conducting because of this um:: (.) you know, emblematic specificity in your movement. It
 was very, it was outlined very well and clear, and um: (.) I think musicians (.) especially (.) professional musicians, as they get, you
 know, as we get more and more advanced in our playing (.) appreciate that.
 491 C5: Yeah.
 492 R: Mm hmm.
 493 C5: Um:: (2.0) in my study, we don't work about how to conduct uh, amateurs
 494 R: Mm hmm.
 495 C5: like of course in Symphonic Bands
 496 R: Right.
 497 C5: um:: (.) and I, and I think that's uh:: a little sad cuz uh::
 498 R: Yeah.=
 499 C5: =I don't think my first job will be in a professional orchestra.
 500 R: No. [Laughter]
 501 C5: So uh...
 502 R: Yeah.
 503 C5: so in other words, we don't learn how to be a teacher
 504 R: Mm hmm.
 505 C5: and, and I think that's really bad, cuz there is a big difference in uh:: if we're amateurs.
 506 R: Mm hmm.
 507 C5: In Symphonic Bands=
 508 R: =Mm hmm.
 509 C5: they often need you to be the metronome
 510 R: Mm hmm.
 511 C5: which is really boring=
 512 R: =Mm hmm.
 513 C5: but in orchestra (.) you have group leaders and professional musicians that can
 514 R: Mm hmm.
 515 C5: they don't need the beat=
 516 R: =Mm hmm.
 517 C5: they don't need the metronome
 518 R: Mm hmm.

519 C5: they have that in their heads

520 R: Mm hmm (.) yeah.

521 C5: uh:: the conductor is supposed to be something else.

522 R: Hmm (.) and I think about even with amateurs too that, or at least my experience with them (.) is (.) you have to (1.0) to a certain, once they get to a certain level you have to give them the responsibility of tempo.

523 C5: Yeah.

524 R: You have to pass it to them and say, “no, you’re responsible for tempo” and (.) and um: (.) do some exercises that help them to (.) um: (.) you know, sort of like starting the group, and then stopping entirely

525 C5: Yeah.=

526 R: =and saying, “keep that going (.) and no you, the tempo responsibility is yours and I want to show you these other things.” (0.5) And um: (.) even with the amateurs (.) I think to a certain degree, and even young kids I: (.) I think getting that (.) started really early that the:: (1.0) that the pulse is inside of them (.) you know (.) in their inner core is a really good thing (.) and um: (1.0) I guess in my experience I would encourage you that (.) all of these like (1.0) techniques that you’re given to work with professional orchestras an::d that kind of thing (.) can be applied to the amateur

527 C5: Yeah.

528 R: the only tricky part is that the amateur has to be taught (.) this language=

529 C5: =Yeah.

530 R: where the professional kind of knows the language of your movements already perhaps, and um:: (.) so the, the:: (.) the amateur I guess needs to be taught the meaning behind your gestures=

531 C5: =Yeah.

532 R: and you need to call attention to them, and show them

533 C5: Yeah.

534 R: that this is what I mean, and this is what I am doing. [Chuckle] So it’s sort of like (.) the technique (.) matches the expression and so you’re=

535 C5: =Yeah.

536 R: teaching them about expression.=

537 C5: =But also, something I::: just thought about, uh (.) i::f you always (.) if you (.) every time (.) a part comes (0.5) if you always show them what to do=

538 R: =Yeah.

539 C5: even though (.) they are doing it by themselves

540 R: Uh huh

541 C5: or not

542 R: uh huh.

543 C5: then, then they (.) will be confused the one time you don’t do it.

544 R: Hmm:.

545 C5: So, so (.) um:: (.) if you (.) always show them where to start playing exactly=

546 R: =Uh huh.

547 C5: cuz maybe that’s what they need sometimes

548 R: Mm hmm (.) yeah.

549 C5: in amateurs, and then you, you start thinking, okay they always need that (0.5) that means they will never learn to (.) to just (.) count the bars and

550 R: Yeah.

551 C5: and play by themselves.

552 R: Good point (.) that’s I guess the same thing as throwing a cue (.) to the trumpet solo.=

553 C5: =Yeah.

554 R: It’s like if you always cue the solo

555 C5: Yeah.=

556 R: =they always just depend on you, right? And um: (.) sometimes maybe:: you just nod your head or::: breathe with them instead, and not always have to give them the cue (.) perhaps in the concert you still would.

557 C5: Yeah.

558 R: But um:: (.) but yeah, these are really good points you’re making because (.) if we always provi::de certain things for them, then do they learn and grow and learn to do it for themselves

559 C5: Mmm.

560 R: even though they can?

561 C5: Yeah.

562 R: But they become dependent.=

563 C5: =Sometimes (.) uh:: I think this (.) applies more to amateurs than professionals

564 R: Hmm::=

565 C5: =because um:: (1.0) sometimes when I look up the very best Symphonic Bands

566 R: Mm hmm.

567 C5: uh:: they don’t have professional conductors.

568 R: No, no, not at all.
 569 C5: The, the conductors are musicians that, that uh:: on a daily basis play their instruments
 570 R: Yeah, yeah.=
 571 C5: =but also conduct some, but they, they are conducting a very good band (.) probably because (.) they are good at instructing.
 572 R: Uh huh.
 573 C5: So::...
 574 R: Yes.
 575 C5: when it's actually a concert, the orchestra is doing all the job and, and you can
 576 R: Yeah.
 577 C5: just do the song.
 578 R: Mm hmm.
 579 C5: But, but with amateurs you have to practice everything=
 580 R: =Yeah.
 581 C5: you can't have something change on, on the concert.
 582 R: Right.
 583 C5: Like in professional orchestras, sometimes the conductor can (.) have some special feelings
 584 R: Yeah. [Laughter]
 585 C5: and the orchestra (.) can actually (.) build on that feeling
 586 R: Uh huh.
 587 C5: and then do something special (.) on the concert.
 588 R: Yeah (.) uh huh.
 589 C5: But amateurs (.) I believe don't work that way
 590 R: No.
 591 C5: they have to practice everything (.) and when it's practiced (.) it doesn't matter (.) what the conductor does sometimes
 592 R: No.=
 593 C5: =but of course without the conductor (.) they can't play.
 594 R: That's right. [Laughter]
 595 C5: Uh (1.0) so I'm not saying that the conductor doesn't have to do anything on the concert
 596 R: Right (.) no, yeah.=
 597 C5: =but (.) but of course it's a lot more about (.) simply practicing.
 598 R: The rehearsals before it?
 599 C5: Yeah, the rehearsals.
 600 R: That's right (.) yeah _____, these are really, really good points (.) [laughter] um:: and I see that a lot in teaching (.) is a really, really good high school teacher (.) they're not really conductors, they don't have that expression in the music (.) but they conduct, but I, what I mean by con::ductor is (.) they're not showing much expression=
 601 C5: =Yeah.
 602 R: but they're really good at the rehearsals:: and preparing:: and talking about expression, and really good at (.) talking about technique
 603 C5: Yeah.
 604 R: and their bands play really well, but um:: (.) and so: (.) part of my PhD is working with undergraduates, future high school teachers to (.) help them become more expressive, because they are very good at their rehearsals [chuckle] and um:: (.) yeah (.) well::: yeah.
 605 C5: Um::: I also (.) we talked (.) some about uh: (.) whether you're supposed to say (.) something or not, instruct it.
 606 R: In rehearsal?
 607 C5: Yeah
 608 R: Hmm.
 609 C5: in rehearsal (.) obviously not on the concert.
 610 R: Yeah (.) yeah no. [R and C5 laughter] Yeah no.
 611 C5: But um:::...
 612 R: Hmm.
 613 C5: what was I supposed to say (.) cuz sometimes the teachers want us to:: only show it
 614 R: Mm hm.
 615 C5: and, and uh (.) if they don't (.) do it
 616 R: Mm hmm.
 617 C5: then it's two possibilities, either they (.) didn't understand it, because you weren't doing the right thing
 618 R: Mm hmm.
 619 C5: or they just didn't see it.=
 620 R: =Mm hmm.
 621 C5: so then you have to tell them

622 R: Mm hmm.
 623 C5: if they (.) didn't get it (.) uh:: (.) but um::...
 624 R: But the point (.) is that you should try to show it first?
 625 C5: Yeah (.) and, and try to:: (.) and also try to make the instructions as short as possible.
 626 R: Oh good point.=
 627 C5: =Cuz::, cuz that uh:: of course (.) saves a lot of time.
 628 R: [R and C5 laughter]
 629 C5: But, but then it won't be a lot (.) to think about (.) like (.) don't play as loud
 630 R: Mm hm.
 631 C5: instead of explaining why.
 632 R: Mm hmm.
 633 C5: Uh::...
 634 R: Yeah.
 635 C5: we also talked about the, whether you are (.) supposed to tell them how not to play=
 636 R: =Mm hmm.
 637 C5: or, or (.) not.
 638 R: Or to encourage them
 639 C5: Yeah.
 640 R: to play a different way.
 641 C5: Sometimes (.) you might want to tell them how not to play
 642 R: Mm hmm.
 643 C5: and then how to play.
 644 R: Mm hmm.
 645 C5: But, uh:: (.) so, so it's not uh:: (.) it's not one rule.
 646 R: Mm hmm.
 647 C5: that says how to instruct (0.5) and also I know that there are many conductors who are extremely good at instructing.
 648 R: Mm hm.
 649 C5: but (.) just okay (.) at conducting
 650 R: Mhm. Yeah.
 651 C5: um:: (.) but even though they are making a very good job. So::...
 652 R: Yeah (.) oh yeah.
 653 C5: I myself (.) uh:: (.) I'm (.) not very good at instructing.
 654 R: Okay.
 655 C5: I feel that if um:: (.) I don't have a lot of experience in that, cuz when we are practicing (.) um:: (.) we don't instruct at all
 656 R: Mm hm.
 657 C5: we just (.) the teacher is instructing us
 658 R: Mm hmm.
 659 C5: how to conduct.
 660 R: Right.
 661 C5: So we, we don't, we haven't practiced that yet. I hope we do.=
 662 R: =The art of um:: (.) uh sort of um: (.) instructing and rehearsing
 663 C5: Yeah.
 664 R: and working with the players on moments you want to make better.
 665 C5: Yeah.
 666 R: Mm hmm.
 667 C5: Cuz of course you have (.) thoughts (.) about how it's supposed to be
 668 R: Mm hmm
 669 C5: but how do you tell
 670 R: mm hmm.
 671 C5: that's what it's supposed to be?
 672 R: Mm hmm.
 673 C5: So, so when I:: (.) I've been in these situations sometimes
 674 R: Mm hmm.
 675 C5: um, conducting and stopping and then just wondering.
 676 R: How do I say it? [Laughter]
 677 C5: Yeah, what do I have to say? [Laughter]
 678 R: Yeah, I know, it's tricky (.) and I know the, the more you do it (.) the better you get at it (0.5) an::d things like you learn, like to use (.) probably you discuss metaphors (.) and to say words like deeper, darker=
 679 C5: =Yeah.
 680 R: I want to this sound like, you know (.) dark rich chocolate, and

681 C5: Yeah.

682 R: you're giving me::, you know: (.)milk chocolate, you know?

683 C5: Yeah.

684 R: And like (.) for them they (.) they get it (.) or (.) or you say:: you know, sort of um:: (1.0) it's too bright, like (.) the color:: is just too bright.

685 C5: Yeah.

686 R: much less in the upper register: you know?

687 C5: But also (.) the (.) just listening what they're doing wrong (.) when I conduct uh;, that's not (.) something I practiced.

688 R: Hmm, yeah.

689 C5: Um:: cuz a lot when, when I practice I:: (.) I often listen to the music

690 R: Mm hmm.

691 C5: and, and I know you have to be very careful doing that cuz uh:: often (.) you don't conduct them

692 R: Mm::.

693 C5: you just follow the music.

694 R: Mm hm (.) mm hm.

695 C5: So:: if, uh:: but (.) so I'm not used to being there an::d (.) uh: (.) listening to what is wrong (.) while you're conducting=

696 R: =Mm hm.

697 C5: cuz I'm already concentrating

698 R: Mm hm.

699 C5: uh:: (.) and then afterwards telling them (.) what was wrong.

700 R: Mm hmm (.) that's a real art (.) isn't it?

701 C5: Yeah (.) yeah.

702 R: Thinking about your musical vision at the same time that you're listening to the product. (0.5) So you're thinking about what you want out of the sound and then at the same time you're thinking about how it's (.) how it is or isn't matching that, and what's wrong with that, that you want to fix.

703 C5: Yeah.=

704 R: =Yeah, that's such an art (.) yeah (.) that's a very um: (.) tricky balance I think (.) to conducting. (2.0) So:: (.) let's talk about the accuracy tests a little bit, I'll just go through each part and get your ideas (.) in Part One of the test, you listened to three sounds:: (.) and saw:: a gesture (.) and the::n (.) or you watched the gesture and heard three sounds

705 C5: Yeah.

706 R: then you had to select the sound that best fit (.) the gesture. What was (.) easiest for you? (1.0) Did you like seeing::, hearing the three sounds:: and then seeing the gesture?

707 C5: Mm::.

708 R: Or did you like seeing the gesture and then trying to match it with the sounds?

709 C5: Uh:: I liked seeing the one gesture and then matching it to the sounds, cuz uh:: (.) i::t, cuz whe::n you had the three sounds first, you had to remember (.) all (.) three of them.

710 R: Yeah.

711 C5: Of course it wasn't too much (.) I think most of us could remember it

712 R: Yeah.

713 C5: but you, you have to uh: (.) remember okay, what was that part and that part and that part?

714 R: Mm hmm.

715 C5: But when you had the first (.) only conducting

716 R: Mm hmm.

717 C5: then you have to remember, okay it was a movement like this=

718 R: =Mm hmm.

719 C5: and then you just listen. Was it this? No. Was it this?

720 R: Hmm::.

721 C5: Or was it this? Oh, it was this sound. So it's:: only (.) because it was (.) only one thing to remember at first.

722 R: [R and C5 laughter] Yeah, good point.

723 C5: Yeah (.) I don't think it had anything to do with the music at all.

724 R: Right. I find the same

725 C5: Yeah.

726 R: when I have to remember many things

727 C5: Mm hmm.

728 R: at once.

729 C5: Yeah.

730 R: Yeah, good call (.) no, for the remembering.

731 C5: Yeah.

732 R: Um:: (.) what um:: (.) in Part Two you:: got to do a little bit (.) something a little different, you watched the three gestures (.) and you listened to one sound (.) and:: or (.) you listened to one sou::nd and watched three gestures and had to select the gesture that best fit with the sound. Which one there did you prefer?

733 C5: Yeah (.) I think it's the same there, when I hear just one sound

734 R: Uh huh.

735 C5: at first and then (.) I remember (.) what part of the music it was

736 R: Mm hmm.

737 C5: and then (.) try to match it with the three.

738 R: Mm hmm.

739 C5: Um:: (.) but what was funny sometimes (.) uh:: with the uh::gestures

740 R: Mm hmm.

741 C5: was that you could, you could see (.) what part of the music it was (.) and then (.) afterwards trying to (.) or, or trying to uh (.) answer before you've heard it

742 R: [Laughter]

743 C5: and then afterwards you hear it and you say yes::.

744 R: Yes:: (.) so you saw the movement, and you heard the sound in your mind?

745 C5: Yeah (.) it was a few times where you really could, but, but I think that's also because (.) we had already seen the same clip (.) before at one time

746 R: Hm::.

747 C5: maybe (.) cuz, cuz I remember you, you used some of the same...

748 R: Yeah, some of the groupings (.) um: (.) were in a row

749 C5: Yeah.

750 R: like some of the same groupings or sounds.

751 C5: Yeah.=

752 R: =Yeah.

753 C5: So, so of course then (.) it also was easier to remember

754 R: Yeah.

755 C5: but:: but we also (.) I think remember what sound it was (.) also.

756 R: Mm hmm (.) do you think that is because you conducted the sound? That you also remembered that's easier and you made the movements that would help you? What I'm trying to get at is (.) as a conductor, do you think you had an advantage in those tests:: than (1.0) let's say the musicians? Because you made the sounds (.) well not made them

757 C5: Maybe.

758 R: they made the sounds.

759 C5: But, but the musicians also were (.) in the room (.) so, so::...

760 R: Yeah.

761 C5: I don't know what would happen if you would take some other (.) musicians that hadn't been in the room=

762 R: =Good point.

763 C5: an::d, and made them match the

764 R: Yeah.

765 C5: gestures.

766 R: Who didn't make the sounds?=
767 C5: =Yeah.

768 R: And who didn't um:: (.) who weren't involved in the project at all.

769 C5: Yeah.

770 R: Yeah, that's, that would be really intriguing (.) to test (.) the musicians even, not non-musicians, but musicians that weren't there.

771 C5: Yeah.

772 R: Yeah (.) that's really, yeah (.) and then Part Three you had to watch three differe::nt (.) audio and gesture combinations, and select the audio gesture number that best (.) that um: (.) made the most auditory:: and visual sense to you.

773 C5: Hmm.

774 R: What did, what did you think about that part of the test?

775 C5: Uh (.) sometimes it was uh:: very obvious (.) uh:: those were the funny times.

776 R: Yeah. [R and C5 laughter]

777 C5: An::d, and sometimes (.) it was (.) uh, very hard cuz you didn't think any of them matched

778 R: Mm hmm.

779 C5: um:: (.) and I started to wonder if, if you had tricked us, if that actually was the answer. [C5 and R laughter] That none of them (.) were right.

780 R: No, no, I never tricked you, but um: (.) I think part of it was just the difficulty of um: (.) trying to get the:: (.) gesture (.) um: (.) screen captures to match with the

781 C5: Yeah.

782 R: sound clips (.) and sometimes I wasn't very good at it because the technology (.) to make the:: (.) the (.) the screen um:: (.) clips is not quite there yet, sometimes it (.) sort of freezes the frame=

783 C5: =Yeah.

784 R: a little and sticks the conducting.

785 C5: Yeah.

786 R: Yeah.=

787 C5: =We saw that, that sometimes the:: (.) i::t (.) we could see that (.) this was the right answer

788 R: Yeah.

789 C5: but it wasn't=

790 R: Quite fitting. [Laughter]

791 C5: Quite fitting (.) yeah.

792 R: Yeah (.) and I know um: (.) since I have been her::e they've um:: (.) a few, a few people have shown me some better software technology to use to make better um: (.) [giggle] examples. So I think part of it was a flaw:: of mine, but it's good that it didn't always line up for you because it made you really think (0.5) like, hmm...

793 C5: Yeah.

794 R: [Laughter] But um: (.) yeah.

795 C5: Cuz it was all, if it was (.) uh:: (.) too obvious

796 R: Mm hmm.

797 C5: if everything was perfect=

798 R: =Mm hmm.

799 C5: then, then the answer (.) would also be obvious.

800 R: Mm hmm.

801 C5: Then:: we didn't have to think.

802 R: Mm hm (.) that's right and (.) I did manipulate the tempos because of that

803 C5: Yeah.=

804 R: =but then when I did manipulate the tempos it really distorted the sounds and also it distorts the gestures a little bit (0.5) but (.) I guess (.) the tricks we do [giggle] but no, I promise that all the:: there were correct answers in all of them. [C5 and R laughter] And the other thing um: (1.0) another conductor had asked me did (1.0) um:: (.) did I incorporate (.) your clips from that day in the second test (.) but the:: second accuracy test that you did on the day that you conducted the second time (.) that was the same test you took the first time, just the clips wer::e um:: (.) mixed up.

805 C5: Yeah.

806 R: So I didn't make a new test (.) so you were in that test as well (.) the second test. So (.) um:: (.) yeah, that's great (0.5) in:: um:: (.) you were already talking about this a little bit, uh, I observed two things (.) two scenarios (0.3) one is less common (.) and one is probably more common and I think the one that's more common you discussed a little already (.) um::: that is where the ensemble plays:: so beautifully: with phrasing and affect and (.) they vary the timings and they vary the volumes and (.) um (.) but the conducting is really bland and boring and just a beat pattern without much else.

807 C5: Yeah.

808 R: And then the other scenario is sort of the reverse or flip of that, which is:: (1.0) um:: (.) kind of a paradox but, where the gestural landscape is so romantic an::d the conductor's expressive and beautiful and all of that, but um: (.) the ensemble is playing quite bland.

809 C5: Yeah.

810 R: What do you think about that?

811 C5: Um::...

812 R: Or why that might be?=

813 C5: =As I said, this is something we are working on a lot (.) if the orchestra is like (.) really lazy

814 R: Mm hmm.

815 C5: maybe it's early one morning

816 R: Mm hmm.

817 C5: and, and (.) the guy who is way (.) at the:: back, of the:: violins

818 R: Yeah.

819 C5: he doesn't (.) he doesn't pay a lot of attention or you don't pay a lot of attention to him

820 R: Mm hmm (.) good point.

821 C5: because he is so far away.

822 R: Right.

823 C5: Um:: (.) so::, so:: when (.) the:: then how (.) do you get the orchestra to:: (.) to do something? Um:: (.) and that's all about communication.

824 R: Mmm.

825 C5: Um:: (.) sometimes you of course have to just tell them (.) but uh: I don't know, this is maybe what conducting is all about? Trying to (.) uh:: (.) show them something, and, and make, make them do it (0.5) not, not that you are doing it.

826 R: Mm hmm.

827 C5: Uh:: I remember we::: (1.0) one of our teachers

828 R: Hmm.

829 C5: told us that uh:: in uh the, Berlin Philharmonic

830 R: Mm hmm.

831 C5: they uh (.) many of the musicians are (.) uh, really good and, and want to be very independent

832 R: Mm hmm.

833 C5: uh:: um:: (.) so when in orchestra you have (.) that many good musicians

834 R: Mm hmm.

835 C5: that want to do their own thought

836 R: Mm hmm.

837 C5: i::t might (.) collide.

838 R: Oh yeah.=

839 C5: =Cuz, cuz they have a lot of good thoughts

840 R: Right.

841 C5: maybe not the same

842 R: Right.

843 C5: thoughts, and that's a problem (0.5) and, and that's (.) and then they need a conductor (.) that (.) uh:: can (.) uh (.) take control

844 R: Yeah.

845 C5: and actually (.) and say that, no, we are going to do it my way.

846 R: Mm hmm.=

847 C5: =Cuz it's:: (.) the:: orchestra needs to have one thought of ho::w to (.) do (.) something.

848 R: A collective vision

849 C5: Yeah.

850 R: rather than so many individual ideas of what it should be.

851 C5: But of (.) but of course uh (.) the other way, like you said, sometimes they need individual help. Like when they don't play it right, you don't tell uh, the solo player how to play his solo.

852 R: Right (.) yeah.

853 C5: Uh I think especially in professional ensembles

854 R: Mm hmm: (.) yeah.

855 C5: that would be probably be a little insulting to

856 R: Right.

857 C5: tell them, don't play it like that.

858 R: Yeah.

859 C5: But of course with a Symphonic Band, amateurs (.) you (.) can tell anything cuz the::.

860 R: Mm::.

861 C5: often the conductor is the only professional musician there, so he... [C5 and R laughter]

862 R: Where you might want to give them an idea.

863 C5: Yeah (.) and, and often the conductor can (.) yeah, he thinks of himself

864 R: Yeah.

865 C5: as the:

866 R: Yeah.

867 C5: as:: a, a lot higher.

868 R: Yeah (.) right.=

869 C5: =Then the musicians

870 R: Hmm::.

871 C5: I don't know how that is in an orchestra

872 R: Hmm::.

873 C5: cuz, cuz it is true that, that the most famous conductors are often the angriest or the

874 R: Yeah.

875 C5: most controlling ones.

876 R: Yeah.

877 C5: Uh:: and, and uh:: I've experienced sometimes that uh, uh the angry conductor does not help of course

878 R: Yeah (.) yeah (.) tense and...

879 C5: Cuz he's like "no, it's not supposed to be like this" (.) uh, and like (.) wants to control (.) the orchestra (.) um:::...

880 R: This is a really tricky thing, this balance of control I think.

881 C5: Yeah.

882 R: Mm hmm.

883 C5: Um:: (.) um:: (.) yeah.

884 R: And it's also, like what you're just describing to me is:: uh: respect
885 C5: Yeah,
886 R: cuz you:: (.) you want the musicians to really respect you, and go along with your vision (.) but at the same time, if you're too angry:: and too controlling (.) they'll play for you, and they'll play what you want
887 C5: Yeah.
888 R: but they might not respect you.
889 C5: And, um:: (.) we, we haven't learned so much about that I think.
890 R: Hm::.
891 C5: But, but then again it's about how you, if you're instructing how you say it.
892 R: Mm hmm.
893 C5: Don't say (.) don't play it like this
894 R: Yeah.
895 C5: play like this (.) but you might have to, have to say it in another way.
896 R: Yeah.=
897 C5: =So that they'll say, "Oh, that's a really good idea."
898 R: Mm hmm.
899 C5: Um::...
900 R: And then they're coming along with you:: (.) in a positive way, rather than feeling, you know=
901 C5: =Yeah.
902 R: attacked or...
903 C5: And, and that can also be (.) uh:: something teachers learn how to do like (.) uh::=
904 R: =Hm::.
905 C5: um:: (.) like uh:: we learned at the::, when we learned about strings
906 R: Mm hmm.
907 C5: uh:: (.) he said, "If you're going to uh:: (.) tell them how to play something, uh:: uh:: maybe if they're playing too romantic
908 R: Mm hm.
909 C5: you want them to play more:: like:: uh, something else
910 R: Mm hmm.
911 C5: less romantic, more Mozart."
912 R: Yeah.
913 C5: Uh, then you could tell them (.) uh, you don't tell them not to play this, but tell them, just save this for a time we're actually playing Romantic Music. So you're not telling them what to not play.
914 R: Mm hmm.
915 C5: You're telling them what to not play right now
916 R: Mm::...
917 C5: so that (.) you can use this, "this is not wrong
918 R: Mm hm.
919 C5: but don't use it right now."
920 R: Oh good point.
921 C5: An::d you, and, and of course it's also about if (.) we smile when we say it
922 R: Yeah. [Laughter]
923 C5: and say it in a way that's (.) yeah.
924 R: Yeah (.) oh I like what you're saying because it's a really nice way to communicate with people (.) that garners this respect (.) an::d um:: (.) you're making a change, but you're doing it in a way:: that's saying:: (.) that's not (.) you know, no:: no::, not now:: (.) and, that's not right, and, you know (.) you're saying, yeah, we use that later (.) and here we want this (.) yeah.
925 C5: But, but I:: experienced a lot in:: amateur, especially with children
926 R: Hmm.
927 C5: Um:: (.) in school bands
928 R: Mm hmm.
929 C5: that:: the:: best school bands are with uh:: really angry and controlling conductors
930 R: Yeah.
931 C5: sometimes, I also heard conductors that have lost their jobs because of the parents, an::d and the children thought that he was (.) mean to them.
932 R: Yeah.
933 C5: So, so there is a balance there too.
934 R: Yeah there is.
935 C5: But, but like um:: (.) in, in school bands there is something about that
936 R: Mm hm.
937 C5: having the control and just (.) uh:: be the boss.

938 R: Mm hmm (.) yeah you definitely have to have vision and want to relay that vision (.) and then, I think you're really getting onto something (0.5) ho::w you do it is really important (.) and then (.) um:: (.) and I always think about the mu::sic as being (.) what I'm:: (.) serious about and want to:: make (.) the most amazing, and then (.) my character will reflect (1.0) the music. I'm very serious when I work with music and, cuz I really want it to be a certain way, but outside of that, I'm (.) friendly:: and happy:: and (.) bubbly and (.) you know (.) talk with them

939 C5: Yeah.

940 R: and relate with them, but on the podium (.) I'm:: all about the music

941 C5: Hmm.

942 R: you know (.) an::d um: (.) and I don't let much else come in:: (.) as far as with kids, you know (.) like (.) bad behaviours:: or

943 C5: Yeah.=

944 R: =little things they do, yeah.

945 C5: I think, I think it's a lot about they uh:: (.) like (.) in school (.) at class

946 R: Mm hmm.

947 C5: when the children aren't listening and they're making noise

948 R: Yeah.

949 C5: you have to be the teacher and tell them

950 R: Yeah.

951 C5: stop that.

952 R: Yeah. [Laughter]

953 C5: Then you have to be that

954 R: That's right.

955 C5: that controlling (.) and, and it's the same in school bands

956 R: Mm hmm.

957 C5: cuz they are children

958 R: Right.

959 C5: not grownups.

960 R: Right.

961 C5: So we have to act in:: a whole different way

962 R: Yeah.

963 C5: an::d, and of course (.) in school bands (.) uh (.) it's not as much of conducting as it is

964 R: Right.

965 C5: being just a teacher.

966 R: That's right (.) exactly (.) exactly.

967 C5: Or:: um:: (.) we once learned that (.) um:: (1.0) there's a:: good name (.) for not calling it conductor, but Band Trainer

968 R: Hmm::.

969 C5: cuz i::t's a better word sometimes

970 R: Mm hmm::.

971 C5: that he is just a Band Trainer.

972 R: Mm hmm (.) mm hmm (0.3) yeah, yeah like um: (.) in the, in the States or in Canada we say Band Director

973 C5: Yeah.

974 R: same thing (.) Band Director or::: the director of the band, but he's (.) yeah, training the musicians too. That's a really good point.

975 C5: Ah::.

976 R: It, it is different.=

977 C5: =I know they used this word band trainer in the::: brass bands

978 R: Yeah (.) yeah-yeah.

979 C5: cuz (.) uh, in the real concerts they hire a professional conductor. So, so the first sessions (.) they, they use the band trainer

980 R: Trainer?
[Laughter]

981 C5: Just, just to learn the notes

982 R: Right.

983 C5: and then (.) they hire the professional conductor (.) to do the actual music (0.5) and, and I think that's very strange=

984 R: =Yeah.

985 C5: cuz when you have another conductor in, it will probably just (.) change everything.

986 R: A new vision? Yeah (.) yeah, that's true. Yeah (.) I see what you mean.

987 C5: But, but it also could (.) have something to do with the:: (.) not having the money (.) to::

988 R: Mm hmm.

989 C5: always have a professional (.) conductor cuz if you want a really good conductor=

990 R: =Mm hmm.
991 C5: it probably costs a lot of money.
992 R: Yeah (.) that's true:: that's very true (0.5) um:: I have just a couple more questions (.) and then we're all set. (1.0) I'll just double check my sheet here (1.0) um:: (.) before you came into this study, had you ever conducted any of the marches?:
993 C5: Not conducted, but played.
994 R: Okay.=
995 C5: =I just played the Prokofiev *March* yesterday.
996 R: Oh great. [C5 and R laughter]
997 C5: So:: [chuckle] I really knew that one.
998 R: But um: (.) had you, you'd mentioned to me about the *Florentiner March*, had you played that one before?
999 C5: Yeah.
1000 R: Okay (.) and had you played the *Barnum and Bailey's Favorite*?
1001 C5: Um: (.) no, never heard it before.=
1002 R: =And the *Washington Grays March*, had you played that one?
1003 C5: No.
1004 R: Okay (.) so you're more familiar with the um: (.) Prokofiev and the (.) and the Fučík?
1005 C5: Yeah.
1006 R: Okay (.) and what factors influenced your decision to be part of this study? Did Per Sigmund encourage you?
1007 C5: Um:: (.) y::es (.) or: a::t least it was he: who told us (0.5) I:: don't think we really knew wha::t it was:: about.
1008 R: No. [Laughter]
1009 C5: He said it was uh:: it seemed like a very interesting study
1010 R: Yeah.
1011 C5: uh:: so:: we just said yes (0.3) so it was he:: (.) who encouraged us.
1012 R: Oh good.
1013 C5: But I don't think we really knew what uh (.) we were going to do.=
1014 R: =What you were getting into?
1015 C5: Yeah, but It was really fun. So::...
1016 R: Oh good.
1017 C5: Really, I think we're:: glad that we:: joined this.
1018 R: Oh I'm glad.
1019 C5: Yeah.
1020 R: Would you if I:, I probably won't be able to afford to come back to Oslo, but (.) if I came back another year, would you encourage other first year conductors:: to do it?
1021 C5: Yeah:: probably.
1022 R: Yeah (.) if I did a similar thing?
1023 C5: Yeah.
1024 R: Great (.) and um: (.) do you, so: (.) do you consider this (.) study, or your participation in it to be:: um:: (.) of um: (.) some kind of a lasting benefit to you as a (.) conductor, or musician::? Or::...
1025 C5: Yeah, I: certainly hope so.
1026 R: Yeah.
1027 C5: Of course it was confusing when, when you have the (.) suit
1028 R: Yeah. [Laughter]
1029 C5: on to (.) to concentrate on conducting. [Laughter]
1030 R: With all the gear.
1031 C5: Yeah.
1032 R: With all the markers popping off
1033 C5: Yeah (.) yeah.
1034 R: and then the one day when (.) when the system wasn't happy with me, but you were conducting great.
1035 C5: Yeah.
1036 R: [Laughter] Um:: (.) let's see:: (.) um:: do you believe that the study has changed your:: understanding of conducting:: at all?
1037 C5: Um:: (4.0) I:: don't actually think so.
1038 R: No? [Laughter]
1039 C5: Um::...
1040 R: Maybe confirmed some things you were thinking about? Or::...
1041 C5: Yeah (.) confirmed, absolutely
1042 R: Okay.
1043 C5: cuz, cuz we hadn't really:: (.) learned anything:: (.) um: (.) how to do (.) something.
1044 R: Yeah.
1045 C5: You hadn't told us

1046 R: Mm::

1047 C5: how to do of course (.) uh:: (.) and, but a::bsolutely confirmed (.) something (.) that (.) how you move (.) must make sense, at all times. [Laughter]

1048 R: Yeah (.) good (.) yeah and that's a tricky thing with teaching conductors (.) um:: (.) I always think about like Nadia Boulanger and how she taught her composers (.) cuz you don't want to say:: (.) "okay Paul Hindemith, you have to compose like this."

1049 C5: Yeah.

1050 R: Because a lot of her students turned out very different

1051 C5: Yeah.

1052 R: in their composition (.) styles, right? So in conducting too, a very similar thing, we want our conducting students to turn out all different (.) because we don't always want to say that you should do it (.) exactly this way, but we want to give ideas

1053 C5: Hmm.

1054 R: and try to show how you could (.) do it. So::...

1055 C5: Ah, just remembered (.) one time in the (.) Prokofiev *March* (.) uh:: where I always did it really fast

1056 R: Yeah.

1057 C5: uh:: but (.) uh:: (.) I::, I think the:y played a little too fast.

1058 R: Yeah. [Laughter]

1059 C5: E::ven though the (.) tempo was the right tempo, they played (.) a little um:: (.) in front.

1060 R: Uh huh.

1061 C5: And uh:: instead of funny, or (.) as it's supposed to be

1062 R: Mm hmm (.) mm hmm.

1063 C5: more funny

1064 R: Mm hm.

1065 C5: than just stressing or something.

1066 R: Mm hmm.

1067 C5: And uh:: (.) and I knew that I:: (.) wa::sn't supposed to (.) instruct them.

1068 R: Yeah.

1069 C5: So, so I was thinking, okay, what am I going to do?

1070 R: Yeah (.) so...

1071 C5: I, I never (.) got it. I, I tried, tried to just start slower.

1072 R: Uh huh, but still they... [Laughter]

1073 C5: just a little slower, but they still played it (.) as fast as the first time, cuz they knew:: I would conduct it fast.

1074 R: Yeah. [Laughter]

1075 C5: So they, they: just played, without (.) yeah (.) an::d (.) and sometimes I also felt that, that the tempo (.) I:: tried to give them (.) uh:: was:: not the tempo they were playing

1076 R: Uh huh.

1077 C5: but I had to (.) uh...

1078 R: Adjust a bit.=

1079 C5: =Yeah (.) adjust a bit.

1080 R: Yeah.

1081 C5: Cuz (.) um: (.) probably (.) because they had played all day

1082 R: Yes::.

1083 C5: and had (.) their own (.) tempo stuck in.

1084 R: Engrained.

1085 C5: Yeah.

1086 R: Yeah:: I think that's part of:: one of the flaws of the study too:: (.) I tried to change the orders of the conducts on the second time so that if you conducted in the afternoon the first time (.) you would conduct in the morning the second time

1087 C5: Yeah.=

1088 R: =but um:: (.) but yeah that is true, you kind of get doing something so much that it's engrained a certain way.

1089 C5: And, and also (.) that the different marches actually have different tempos=

1090 R: =Mm::.

1091 C5: but the musicians, I think wou::ld think (.) oh it's a march=

1092 R: =Yes::.

1093 C5: it's a march, and it's a march.

1094 R: Good point (.) they all have different tempos.

1095 C5: They have this, automatic (.) tempo.

1096 R: I know, it's so true. They do get kind of stuck in their ways here (0.5) um: (.) alright I think, let's see (.) um:: (2.0) let's see (.) let's see:: (7.0) I think you came into my study very capable to reflect these emblems and that was obvious from the get go, and capable to show expression (0.5) and um: (1.0) and I guess perhaps (.) your involvement just um: (.) confirmed that you're on the right track (.) with these ideas. I hope anyway, but um: (.) but anyway um (.) I have, I should say it's been a real pleasure working with you and enjoying: your conducting:: in the little (.) skeletons, you know? [Laughter] And uh, I think that um:: (.) you're on the right track and (.) and I wish you all the best an::d and everything, in your studies and in:: your work with the groups that you'll work with. [Laughter] And with your band that you're involved with (.) your Symphonic Band and also um:: (.) the other groups that you'll (.) um: (.) work with (.) an::d uh, so thanks for your time and energy an::d commitment to the project and being a part of the study. I really appreciate that. Do you have any:: um:: (.) final:: (.) final thoughts? [Laughter]

1097 C5: Um:: (.) oh I think I said a lot.

1098 R: Said (.) said a lot (.) yeah. [Laughter]

1099 C5: It was::: it was quite interesting (.) um::...

1100 R: Good.

1101 C5: Uh:: it was at one point that I said to:: one of the other conductors, that maybe we should uh:: while we have our suits on, and while we are waiting or something

1102 R: Yeah.

1103 C5: we::, we can try out the:: (.) some practice uh:: stuff we have learned from (.) Per Sigmund

1104 R: Yeah.=

1105 C5: =and see (.) how (.) if you wanted to record it

1106 R: Yeah.

1107 C5: and see how:: we are improving, o:r if we are doing it right.

1108 R: Yeah::.

1109 C5: Ah:: just for fun.

1110 R: Yeah, to see, yeah.

1111 C5: Yeah.

1112 R: Yeah (.) no I know, it's um:: (.) it's great to be:: um:: (.) I think this system is really good at getting inside of our technique and (0.3) it really just confirms if you are on the right track with your movements.

1113 C5: Yeah.

1114 R: So, but I will give you your clips

1115 C5: Yeah.=

1116 R: =that you:: made from the marches. It won't be of course these string:: techniques necessarily, but (.) um: (.) and then you can look at them with him:: and um:: (.) I'll give you the videos too, and the (.) point light clips, an::d and you can talk to him about what he see::s and (.) and what he thinks:: too (.) to give you another (.) perspective and (.) everything, but yeah, thank you very much for all of your hard work and (.) for everything (.) and you're insights, I really value these talks because (.) when you get (.) inside of what conductors are thinking and feeling about things (0.3) I think that's where you really learn a lot (0.5) and hopefully (.) in this discussion you've thought about (.) what you think and it confirms what you (.) you know, believe (.) too. So: (.) yeah, so thanks (.) I'll uh (.) stop recording here. [Laughter] [Turns off the recording devices]

Conductor Six

- 1 R: [Starts the recording devices] I'll just get recording and make sure it's okay
2 C6: Yep.=
3 R: =and then we'll get started, it's (.) it'll be good (3.5) okay great (.) so: thanks for coming (.) the purpose of today is to: (.) for me to gain insights on what you thought about the whole study experience.
4 C6: Mm hmm.
5 R: And so um: (.) um: (.) you can answer as (.) you know (.) honestly about it and, and you know, just give me your thoughts about these things as they come to your mind (.) and I will like, stimulate you with some questions and ideas and then you give me
6 C6: Mm hmm.=
7 R: =you know (.) what you're thinking.
8 C6: Mm hm.
9 R: And (1.0) I should say that um: (.) this is being recorded um: (.) for my own um: (.) documentation purposes and like I said before, none of the video um: (.) will be used in any way, shape or form and in this study you're known as Conductor number Six, and in my dissertation um: (.) all of the findings will come through um: (.) that so your ana-anonymity remains. [R & C6 laugh]
10 C6: Okay.
11 R: And som::e, okay (.) so we'll get started and so I'll just take you through um: (.) your thoughts on the conducting with the motion capture, conducting some emblems also um: (.) your thoughts on the accuracy te:sts
12 C6: Mmm.
13 R: And then some general sort of um: (.) what you feel and think about different conducting things (.) that we see=
14 C6: =Mm hm.
15 R: okay?
16 C6: Mm hm.
17 R: Okay (.) so please state your name in full.
18 C6: _____
19 R: Great (.) and how old are you?
20 C6: Twenty-eight,
21 R: Okay.
22 C6: Twenty-nine on Sunday.
23 R: Oh:: Happy Birthday early! [Laughs]
24 C6: Mmm scary.
25 R: Oh:: I turned thirty-four this year, so it was scary.
26 C6: Ah. [C6 & R laugh]
27 R: But you're still in your twenties so that's great.
28 C6: Yeah. [Laughs]
29 R: You're currently enrolled as um: (.) at the Norwegian Music Academy?
30 C6: Mm hmm.
31 R: And uh (.) in what program?
32 C6: Um: (.) uh (.) I'm in the Bachelor program
33 R: Mm:.
34 C6: but I'm um: (.) I'm studying in the third year so I can skip the two first because I have trombone education from before
35 R: Oh:.*
36 C6: So Music History and Theory and...=
37 R: =Mm hmm.
38 C6: and Ear Training and stuff, so I can skip the two first years and so I could do a Bachelor in two years then.
39 R: Oh nice and then um:...
40 C6: So it's the third and fourth year.
41 R: What is your area of study?
42 C6: (1.0) Oh which subjects? Um:...
43 R: Yeah like is it a conducting stream? Or a trombone performance stream, or?
44 C6: Well I'm just doing conducting uh::
45 R: Okay.
46 C6: so I can skip all the uh (.) all the performing
47 R: Mm hmm.
48 C6: trombone
49 R: Mm hmm.=
50 C6: =study points and, and, and um: (.) fit in the other subjects like uh: Alexander Technique and
51 R: Oh nice.
52 C6: just pick my own like piano playing and stuff.
53 R: Mm hmm.

54 C6: So I could kind of
55 R: Okay.
56 C6: actually um: (.) compose my own...
57 R: Program kind of.
58 C6: Yeah in a way.
59 R: Mm hmm, nice (.) I love Alexander Technique um: (.)
for my shoulders. I've always=
60 C6: =Yeah.
61 R: had this thing, um: (.) in my own conducting, is like where my shoulders really come up (.) like this a lot, and Alexander
Technique really helps me to stretch that out, but anyway, that's just an aside=
62 C6: =Yeah.
63 R: and so you're in your third (.) third year of your program and because of your other education you were able to do that.
64 C6: Mm:..
65 R: That's great (.) and um: (.) have you taken two:: or fewer courses in conducting, like, uh: this year in your program, is that your first
kind of conducting classes with Per Sigmund or...?
66 C6: Well I, I did uh: ensemble, their Ensemble Training Two course uh: (.) two years ago
67 R: Okay.
68 C6: it was, it was uh: thirty study points so it was like half (.) half study.
69 R: Half a year or?
70 C6: Yeah half a year, but it was (.) it was during the whole year so I was there like twice a week.
71 R: Oh okay.
72 C6: So, but that was two years ago and uh: (.) so and I did some um: (.) I did some um: (.) online Music Theory it was like Music Theory
in a practical way, or something.
73 R: Mm::..
74 C6: Well it's not like that um: (.) but it's basically Ear Training (1.0) Music History (1.5) and uh: Harmony Training.
75 R: Oh okay.
76 C6: So I did two, two um: (.) two post studies.
77 R: Mm: hm (.) oh nice.
78 C6: Yeah (.) so: but, but, but um: (.) so I did a little bit
79 R: Yeah.=
80 C6: =of Conducting Training before, but it was two years ago (.) so then I've been doing some masterclasses in the summer.
81 R: Oh like summer um: (.) schools or summer
82 C6: Yep.
83 R: symposiums? Conducting symposiums?
84 C6: Yeah that's right (.) yeah (.) one in um: (.) in [] three years ago and one in Valencia (0.5) Valencia.
85 R: Valencia. [Laughs]
86 C6: One year ago so...
87 R: Oh nice and that's with um: (.) like maestros or=
88 C6: =Yeah.
89 R: and then you work with the orchestra and there are other
90 C6: Yeah.
91 R: conductors too?
92 C6: Yeah it was with a guy called Kirk Trevor, from America.
93 R: Mm::..
94 C6: And it was George Pehlivanian last year in Valencia so:...
95 R: Mm: great (.) that's great.
96 C6: Mm:..
97 R: Yeah that's great (.) so: in your schooling now (.) are you currently um: (.) taking lessons with Per Sigmund or um: (.) is it like a
Conducting Masterclass?
98 C6: It's a class.
99 R: Okay.
100 C6: Yeah it's...
101 R: How does it work?
102 C6: it's uh: (.) individual lessons.
103 R: Okay (.) how does your class work? Like you have, how many of you (.) and what do you do in it?
104 C6: Well we're um: (.) uh: (.) we're five.
105 R: Mm:..
106 C6: Because we're together with the ensemble (.) the gang (.) so we're five and you want to know what we do:?
107 R: Well um: (.) not in the whole course
108 C6: No.
109 R: but how is it structured? Like you have a rehearsal orchestra

110 C6: Well yeah.
 111 R: or a lab orchestra that you get to work with on some days?

112 C6: Yeah in the beginning we're uh: (.) have maybe two or three lessons just with us
 113 R: Mm hmm.
 114 C6: so: I'll be playing piano and we have a string player, cello player, two clarinet players and I'm playing a little bit of piano and we're trying to cover the whole, the score.
 115 R: Mm hm.
 116 C6: We're working mostly with chamber music
 117 R: Yes.
 118 C6: like the strings and serenades that's so we can actually cover the piece
 119 R: Yeah.
 120 C6: and uh: (.) after two or three weeks we have a training ensemble so we get strings or wind players or whatever.
 121 R: Mm:.
 122 C6: So we're doing like four or five hours one evening so we get back uh: fifteen to twenty minutes, half an hour or something half an hour each.
 123 R: Yeah.
 124 C6: Yeah.
 125 R: That's great (.) and in those sessions does is Per Sigmund, um: (.) does he watch you and give you uh (.) feedback in a video tape?
 126 C6: Mm hmm.
 127 R: Or is he beside you
 128 C6: Both.
 129 R: and gives you verbal feedback?
 130 C6: Both.
 131 R: Both.
 132 C6: Uh: during the conducting and afterwards I guess, I guess we're going to have a review.
 133 R: Oh like a review one on one?
 134 C6: Yeah, with uh (.) with
 135 R: or with the group?
 136 C6: with the recording (.) well with the group I think.
 137 R: Yeah.
 138 C6: Yeah.
 139 R: Review each other's work and talk about it?
 140 C6: Yeah he's going to make remarks on what I do
 141 R: Mm hmm.
 142 C6: and then um: (.) I think he evaluates (.) so that all the others can see it.
 143 R: Mm hmm and learn from each other.
 144 C6: And then from each other
 145 R: Oh that's great.
 146 C6: So:: uh hmm...
 147 R: What a great way to learn
 148 C6: Yeah:h.
 149 R: cuz it's live music (.) I mean um: (.) I know you work with an ensemble (.) other ensembles that we talked about um: (.) but I guess for some of them, maybe they don't have that luxury so this is the first time they get to really dig into live music with you know, in the schools and the scores.
 150 C6: Yeah yah.
 151 R: What is the Norwegian name, or the name of the group you work with?
 152 C6: The groups that I: conduct?=
 153 R: =Yeah, yeah that you conduct.
 154 C6: It's uh (.) school orchestras.
 155 R: Oh (.) okay.
 156 C6: Yeah.
 157 R: Yeah.
 158 C6: So uh, they're not playing particularly good=
 159 R: =Oh no.
 160 C6: but it's uh (.) it's the kind of work where you feel like your conducting twenty percent and eighty percent you're uh (.) you're (1.5) kind of fixing and arranging things and trying to be an inspiring friendly guy so they don't stop playing.
 161 R: [Laughs] No I know, hey?
 162 C6: So it should be the opposite way
 163 R: Yeah.
 164 C6: but I mean

165 R: No.=

166 C6: =everybody needs to climb the steps so:...

167 R: That's right, oh yeah.=

168 C6: =you've gotta start somewhere.

169 R: That's right and you know you're gaining valuable experience that can be applied to the professional groups later on

170 C6: Yeah.

171 R: and such, right?

172 C6: I think that, I think you learn something (1.0) you learn about uh: (.) what you, what can work and what doesn't work, because when you're working with children it's so obvious if it works or if it doesn't.

173 R: [Laughs] Yeah.

174 C6: And you need to spend so: (.) a lot of time just to figure out what you're gonna do and how you're gonna do it.

175 R: Yeah.

176 C6: And I mean adults, we're just we're big children in a way.

177 R: [Laughs]

178 C6: There are big differences, but I think it can be a valuable

179 R: Mm hmm.

180 C6: thing too, later in life.

181 R: Mm hmm (.) and the ages of the children in those groups that you told me are they in like junior high, high school or?

182 C6: Mm hmm: (.) they're I think, they're maybe ten to eighteen.

183 R: Mm hmm (.) the span.

184 C6: Mm hm.

185 R: Okay (.) in my field of musicology we talk about this notion of tracing a sound (.) and by that (.) I mean um: (.) I want to know if you think at times your gestures or emblematic movements are done or performed with the intention of drawing or tracing the soundscape?

186 C6: Mm hmm (.) if I think that that's a thing to do?

187 R: Yeah (.) or what you feel about it.

188 C6: Yeah yeah.

189 R: It's not all of our conducting but, how do you feel it fits in?

190 C6: I think uh (1.0) I think it's, I guess that's what it's all about, isn't it? To uh: (.) try to use the (1.0) sometimes uh (.) maybe things happen, happen automatically you don't need to do it, it sometimes happens automatically (0.5) but sometimes it is really effective to use certain gestures to produce certain sounds. That's what you are asking me about, tracing sound?

191 R: Yeah.=

192 C2: =Yeah um: (.) so:...

193 R: So sometimes I've asked musicians to draw sort of the sound on paper, but as conductors we get a chance to do what I think of as the three dimensions, to work with so I think I like that more. It's not two dimensional it's three: dimensions so:...

194 C6: I think that for strings it is effective to use the hands I've learned and experienced in a way that not fully because you can, you can adapt the speed and the pressure in your hands directly into the sound production.

195 R: Mm that relates to the bow movement?

196 C6: Yeah yeah, so if you want a really soft or airy sound you can, you can speed up your hand like, uh if you want a fat deep sound with all the bow on it you can use the whole body, you know.

197 R: Ah:.

198 C6: So for strings (.) I think it's a really fast way to get sound changes

199 R: Mm:.

200 C6: but for uh (.) for wind players this is maybe not the most effective way because it doesn't transfer to what they're doing.

201 R: Their own movement.

202 C6: But then I've learned that it's more about (.) maybe more about how you breathe

203 R: Mm hmm.

204 C6: and how you um: (.) use your facial expression.

205 R: Mm hmm.

206 C6: It's how you express your things (.) like you give sound with your eyes or

207 R: Mm hmm.

208 C6: the whole thing, but uh (.) yeah (.) so I definitely think you can make sounds in an instant (.) uh if you just have it clearly (.) uh: clear in your mind what you want to do

209 R: Mm:.

210 C6: because of course you have to prepare. I'm just talking about what I've learned.

211 R: No (.) I'm so glad (0.5) this is so valuable!

212 C6: I have uh: (.) I haven't I don't think this is not uh (.) working automatically for me

213 R: Yet.

214 C6: but I believe in (.) in a way this is what I am trying to follow or

215 R: Mm hmm.

216 C6: this is what I want to learn (.) is to be able to do things really fast and effective

217 R: Mm hmm.

218 C6: but of course it's all you have to be, you have to plan it (.) like we said before you go in

219 R: [Laughs]

220 C6: and so you get what you want.

221 R: Great um: (.) why do you um: (.) what I've noticed is that some gestures um: (.) are good and appropriate for a wide number of sounds that you might use this gesture for a number of sounds. Why, why do you think that might be?

222 C6: Can you, can you

223 R: Sure.

224 C6: explain a little bit more?

225 R: Sometimes you have like um: (.) this sort of um: (.) a glide gesture, a sustained gesture that sort of crescendos up to a note, and then we might find this kind of um: (.) a sound that happens again and you might do it might be a little bit different, but you do this same gesture again.

226 C6: Mm hmm.

227 R: So why, why does that same gesture work for that sound and it also works for that sound and it might also work for this other sound and it might also work for this other number of sounds?

228 C6: Yeah so you're saying that you can do a lot of movements that look the same and, and produce the same result?

229 R: Mm hmm.

230 C6: Is that what...=

231 R: =Yeah they look

232 C6: and why is that?

233 R: yeah, yeah they look the same, it might be the same movement that you do, but it's linked to a different sound meaning. So the sound is a little bit different (0.5) so the same movement, but the sounds are different but it's still effective.

234 C6: Yeah?

235 R: I was just wondering what you think.

236 C6: (4.0) Uh hmm, so you're basically for example talking about like (.) a crescendo or increasing sound or something when you're doing this? [Demonstrates a crescendo gesture]

237 R: Sure.

238 C6: Umm (.) yeah it's a tough question (.) I uh:...

239 R: And you might also do that for another type of sound but...

240 C6: Mm:.

241 R: I've just noticed in my work that some sounds or some movements we can do for many sou:nds and other movements we kind of only do it for one sound, one type of sound.

242 C6: Mm:.

243 R: So this is what I'm sort of wondering, you know (.) are we um: (.) yeah, are we sort of, in our minds, do we have certain gestures that are hardwired to a specific sound we have in our mind (.) that we only do with that one sound? For example, in my marches we have this big bass drum hit.

244 C6: Yeah.

245 R: If you have this big bass drum hit in another march you're probably going to do it the same every time, maybe, or you might have to perhaps do it differently.

246 C6: Mm hmm (2.0) tough questions.

247 R: [Laughs]

248 C6: This is going to last longer than 45 minutes.

249 R: [Laughs] Oh that's okay.

250 C6: (3.5) Okay.

251 R: I guess you can speak from your own personal experience. Do you do the same gestures in those bass drum moments, or is it kind of spontaneous, and you just might do something else?

252 C: Well I mean, uh: (.) I mean thinking about this bass drum (.) I uh (.) I uh hmm (.) I want it to be like, that it shouldn't be like a heavy attack um: (.) or I think I want it to be like you can really hear like a surprise, or like that it meant something, but (.) but um: (.) um: (.) it's a really tough question can we come back to it (.) in a little bit?

253 R: Yeah yeah (.) once we get into it absolutely.

254 C6: I just need to figure out what I want uh:...=

255 R: =No problem!

256 C6: In any case.

257 R: We'll we'll get into some movements and sounds so you get used to what you're thinking.

258 C6: Sorry about that.*

259 R: No:, no um: (.) what are some properties or elements of sound like what are things that you find in sound that change a lot, and require an action to help encourage the music. So what is it about sound that changes that you might want to change your action or do an action.

260 C6: When you're thinking about sound are you thinking, you're not thinking about maybe the length of the notes or are you thinking about just about like a bright or darker sound?

261 R: Well all of them.

262 C6: All oh:

263 R: Whatever you feel.

264 C6: Well it's always about character and what sound that fits the expression of the music at that time.

265 R: Mm:

266 C6: So uh (.) it's just like tempo that some parts need an example to work and some part of music makes a certain sound so it gets musical or it gives you a good feeling and this sounds good. It's like a harmony (.) sound harmony in a way so uh...

267 R: It can be the length of the note, right?

268 C6: Yeah and it could be, it could be vibrato or it could be a dark rich sound or it could be a really light sound

269 R: Mm:

270 C6: and of course uh (.) I mean I guess it's all about conducting (.) thinking about giving the right tempo to the piece and trying to: (0.5) what I think is, I get the right tempo (.) right sound and good phrasing it's...

271 R: A good combination.

272 C6: Yeah, I mean the rest if it's like good positions for professionals it's the right tempo, right sound, right phrasing and all different things like intonation and stuff

273 R: Mm hmm.

274 C6: uh playing good rhythm if you think about advanced conducting, it's (.) I think it's about those three things.

275 R: Mm hmm (.) great.

276 C6: And then of course I remember from recording sessions it's bum ba da da...[hums a melody] uh: (.) the first thing I thought about (.) they played really like ba ba da da da. [hums a more crisply articulated version of the first melody]

277 R: [Laughs]

278 C6: That was just an example from the process.

279 R: Uh huh.

280 C6: I think that was a little like (.) almost like (.) a little bit ironic, like I want a little more on the first note like, ba: ba da da... so it's a little bit more noble, rich in sound.

281 R: Yeah.

282 C6: So for me that was like a really typical place where you should (.) I guess, maybe we will see it someday uh (.) I will see it when I see the video. I was remembering the first thing I was like (.) oh no calm ba ba da das.

283 R: Mm hmm.

284 C6: So that's uh (.) and then I think a conductor should go and get the connection of, this is what I want and it really worked fast, I think. So sound production they're when you see recordings of really great conductors they are all about uh: (.) sound production

285 R: Mm hmm.

286 C6: and they take away all the boring stuff like keeping time and

287 R: Mm hmm.

288 C6: I don't remember which piece, but I saw a recording of Bernstein and he was standing just for like five to six minutes just like...[demonstrates a gesture]

289 R: [Laughs] Yeah.

290 C6: that's the whole thing he did so you can do it like this or you can do it with the hands. [Demonstrates both gestural options] So I think it's about sound production anyway.

291 R: Great (.) do you think some of our emblem gestures you know and use, are sort of separate from the sound (.) or are they connected to the sound? And um: (.) like if you hear the um:...[R sings a melody]

292 C6: Mm hmm.

293 R: Sort of (.) would that be, would that cause you to (0.5) and then if you hear that in another one, would that cause you to do a similar type of movement or would you maybe change it?

294 C6: I'm not following you, sorry.

295 R: No that's okay. I'm probably, I may not be phrasing it well (.) if I have this notion. [Sings a melody]

296 C6: Mm hmm.

297 R: And you have this with one ensemble

298 C6: Mm hmm.

299 R: and then you have to do the same march with another group

300 C6: Mm hmm.

301 R: same, same, um: (.) different orchestra, but same orchestration and you have to do the same march (0.5) um: would you perhaps do the same movement in that, the same movement in that sound or would it be a different movement?

302 C6: You think about if I want to: to uh (.) to uh (.) try new things?

303 R: Yeah.

304 C6: That's what you're thinking about?

305 R: Yeah (.) or like when would you change? Let's say you do it this way [sings and conducts a musical moment] that's how you normally execute it.

306 C6: Mmm.

307 R: And then you have a new orchestra or a new day with them

308 C6: I think...=
 309 R: =what would cause you to change, doing it?
 310 C6: Well the first thing that I'm thinking about is um: (.) well now I've got like players who don't (.) maybe some players can't do it
 311 R: Mm hmm.
 312 C6: So I would maybe adjust the uh: (.) my artistic thoughts to what they actually can do.
 313 R: Mm hmm.
 314 C6: So I think that if I wanted the ritardando. [Sings the musical moment]
 315 R: Mm hmm.
 316 C6: And we have the whole orchestra, "what's a ritardando? We can't do this"
 317 R: Mm hmm.
 318 C6: I would probably go for more. [Sings the moment with much less of a ritardando]
 319 R: Mm hmm.
 320 C6: So it's uh (.) if there are some technical challenges I would of course as a new conductor, I would uh-uh I would adjust my artistic uh: (.) thoughts
 321 R: Mm.
 322 C6: so it would work.
 323 R: Yeah.
 324 C6: It's a handcraft and you need to make sure it works.
 325 R: Yeah.
 326 C6: So of course (.) maybe the big maestros would fire the people who could not do it.
 327 R: [Laughs] Yeah.
 328 C6: But that is not the situation at this point
 329 R: [Laughs] Mm.
 330 C6: so I think it would be technical things or I could like (.) I could have like (.) study the score and suddenly mm: maybe this sounds better, or this is more interesting and I could be in a like a bad mood and..
 331 R: Mm hmm.
 332 C6: [Sings the moment again]
 333 R: Yeah.
 334 C6: So it's like the energy of the day or...
 335 R: Yeah, sure.
 336 C6: or I could have heard a recording of uh (.) somebody else and oh (.) this is cool I want to try this, and of course in the concert situation the uh (.) new things happen of course because you get full of energy and you find you do new things.
 337 R: Mm hmm.
 338 C6: Maybe you shouldn't do too much, but uh (.) sometimes you get caught by the uh (.) the concert situation and you suddenly do something new so:....
 339 R: Mm hmm (.) that's great, no that's great.
 340 C6: Or maybe you had a lesson with a great conductor and he talks about it and gives you a new...
 341 R: Mm: a new way to try it.
 342 C6: Yeah (.) new ideas
 343 R: Great (.) in um: (.) in creating these gestures and emblems that occur in these sort of major sound moments..
 344 C6: Can I ask you, emblems?
 345 R: Yeah (.) what is it?
 346 C6: Yes (.) it's just gestures, right?
 347 R: Yeah and I think about an emblem is like um: (.) um (.) a major sound moment (.) like a nonverbal gesture where you're giving a big musical cue
 348 C6: Mm hmm.
 349 R: sort of like um: (.) a big um: (.) cymbal crash or um (.) a bass drum hit
 350 C6: Yeah.
 351 R: or the end of a phrase [sings some examples] just like um:..
 352 C6: I think I know what you mean.
 353 R: Yeah these sound moments, they can be small or long, but basically you want to say something.
 354 C6: Mm hmm.
 355 R: Mm hmm and um: (.) in these moments, do you think about your movements um: (.) as having sort of the um: (.) three dimensions and being able to use the sort of back and front x space [moves in the described manner] and the right and left y space [moves in the described manner] and the up and down z space [moves in the described manner] do you think about having that whole space around you, to use?
 356 C6: Yeah, well uh (.) I: (.) I don't think (.) I don't think about it while I'm conducting, but I've uh (.) of course been inspired to think about it in training

357 R: Mm hmm.
 358 C6: and uh (.) in preparing for these
 359 R: Yeah.
 360 C6: uh there are of course certain, certain um: (.) techniques for like (.) you can go out to get crescendos and go back to get diminuendos, and I'm trained if you want to get in contact with people at the back, like wind players or percussion players, it's not a good idea to stay down here.
 361 R: Mm hmm.
 362 C6: You have to, to get in contact with them.
 363 R: Mm hmm.
 364 C6: And of course like (.) if you want the whole orchestra to play for you, you need to stretch out and use the whole register (.) to get that it's really a three dimensional thing.
 365 R: It is (.) it is, yeah.
 366 C6: But uh (.) I think of course, maybe the string players really they can see this movement, right?
 367 R: Yeah.
 368 C6: But if you're the percussion player and you're fifteen metres behind this is maybe not so effective
 369 R: Yeah.
 370 C6: because it's it's the wrong, they're from the wrong angle
 371 R: Back and front is the wrong angle yeah.
 372 C6: but uh (.) so maybe it works differently for, for other people in the, and of course the body can also be a three dimensional thing.
 373 R: Mm:.
 374 C6: Uh: I've had some conductors say that you should grow large in the forte, so you can even kind of go back not like, like getting smaller in a way or getting like this [demonstrates a pulled back small pattern] but (.) but try to imagine that your big now
 375 R: Mm hmm.
 376 C6: and that's so you're kind of imagining that your growing so it's instead of maybe like this [demonstrates a smaller pattern with good posture and out from the body] you can maybe just
 377 R: Mm hmm.
 378 C6: grow bigger. [Demonstrates widening out the pattern slightly]
 So I definitely think that the dimensions are...
 379 R: Oh good (.) I'll give you a couple of examples and you...=
 380 C6: =Yeah.
 381 R: some of them you actually already answered already. [Laughs]
 382 C6: Okay.
 383 R: You're so: (.) you're so bright you're ahead of my questions.
 384 C6: [Chuckles]
 385 R: So some of them you answered already, for example if the sound moment is rising in pitch and perhaps maybe rising in like a crescendo (.) and the pitches are going up
 386 C6: Mm hm.
 387 R: what might you do?
 388 C6: Of course the easiest thing is, is maybe to say that it's just going up instead of, but what you're after is the gestural thing to control it?
 389 R: Yeah.
 390 C6: And and...
 391 R: Uh maybe (.) um:..
 392 C6: And of course that's maybe just (.) you need to um: (.) do it opposite.
 393 R: Yeah.
 394 C6: You have to take it out of the other way of extremes to make it, to keep it down
 395 R: Mm hmm.=
 396 C6: =but of course that can also be played softer but
 397 R: Mm hmm.
 398 C6: but my my uh hm ex (.) my experience is that um: (.) actually when I'm working with uh (.) with the young students I um: (.) I use a lot of metaphors
 399 R: Mm hm.=
 400 C6: =uh: (.) maybe saying it first, and then showing it after.
 401 R: Mm hm.
 402 C6: It's like uh (.) if you have of course the major third in a, in a chord
 403 R: Yeah.
 404 C6: and it should be lower=
 405 R: =Yeah.
 406 C6: and I just try to make it like a little bit darker or fatter like this. [Demonstrates conducting the gesture on a lower plane]
 407 R: Mm hmm.

408 C6: And then when I come to this place [moves hand to a higher conducting plane]
 409 R: Mm hm.
 410 C6: I try to remember you know
 411 R: [Laughs]
 412 C6: or the opposite way that in a minor third it should be brighter than (.) and then...
 413 R: Mm::.
 414 C6: But for them it is important that I say it first, because they don't have the knowledge
 415 R: Mm hm (.) mm hm.
 416 C6: I just need to show (.) this note should be like this [demonstrates the gesture down low] and then I try to when I come to this place
 [raises arms to a higher conducting plane] I try to::...=
 417 R: Confirm it with the gesture.
 418 C6: confirm it with u::h (.) the gestures, yeah.
 419 R: Oh yeah.
 420 C6: But at that point it's uh (.) I can't do it in a non-verbal.
 421 R: Right.
 422 C6: I need to do a verbal first.
 423 R: Mm hm (.) so you're teaching them sort of the meaning of what that reinforcement is gonna be.
 424 C6: Mm: in a way.
 425 R: Yeah.
 426 C6: So, but for professionals, I guess it can just be a really=
 427 R: =Mm hm (.) mm hm.
 428 C6: maybe that would actually control the pitch too, not just the dynamics but uh...
 429 R: Yeah, like if the pitch was rising or if the notes were going up.
 430 C6: What can you do then? You could just be like, this is a really difficult thing because this uh (.) is passive.
 431 R: Mm hmm.
 432 C6: You have to be passive or go back or but uh (.) I dunno.
 433 R: No you're, this is great, you're getting at the nuance.
 434 C6: Yah.
 435 R: If the sound moment is sort of light and sudden, or quick like um: (.) in one of the excerpts it was like ba da deet. [Sings example]
 436 C6: Mm hmm.
 437 R: Remember that one? Um: (.) what types of little things could you do there if you wanted to?
 438 C6: To be light and...
 439 R: Yeah like if you hear this sort of moment in one of the marches, there was this moment um: (.) um: ba dup, ba dup, ba dup, ba dup, ba
 dup, ba dup, ba dup, ba dup, ba da dee (.) a da deet. [Sings example]
 440 C6: Mm hmm.
 441 R: Those kind of little ba da deets.
 442 C6: Mm::.
 443 R: What could you do there, to reflect that sort of character like (.) the little the light and quickness of it?
 444 C6: Oh well it's... (2.0)
 445 R: Many things.
 446 C6: in the fingertips or (.) or something like that. Well not like this [demonstrates fluttering finger tips]
 447 R: Yeah.
 448 C6: but something (.) or maybe just uh (.) maybe just with eyebrows
 449 R: Yeah, yeah.
 450 C6: or something.
 451 R: Yeah no, that's perfect.
 452 C6: It would be something really small and light
 453 R: Mm hmm.
 454 C6: and maybe maybe feminine
 455 R: Yeah.
 456 C6: instead of masculine.
 457 R: Yeah yeah yeah. [Laughs]
 458 C6: Like a ballet dancer. [C6 & R laugh]
 459 R: Is um: (.) if the sound moment after that, it (.) it's like kind of strong and sudden like (.) the bass drum, or like a cymbal crash, you
 know
 460 C6: Mm hmm.
 461 R: what kind of things, might these cause you to do?
 462 C6: Um well I, this is more for me as a conductor this is more, more difficult.
 463 R: Mm::.
 464 C6: Um maybe I'm more feminine...
 465 R: No no (.) we all have both.

466 C6: But I mean um: (.) um: (.) to be this like (.) this crazy Russian uh [R laughs] guy who just rips our his hair and, and bounces his foot to the floor to get the resolve, these are the things that I should be training more than just small.

467 R: Oh yeah, than the little ba da deets.

468 C6: So yeah, it should involve some, some, some uh (.) heavy movements with the strong downbeat and it should be (1.0) down to the

469 C6&R: ground.

470 R: Yeah.

471 C6: So uh (.) well, if it's a drum player I guess it's a little more imitating how they should play in a way. If you want them to use a lot of energy and movement you should try to do the same.

472 R: Mm hmm.

473 C6: And of course if it's a string player, you should try to imitate the sound that you want

474 R: Mm hmm.

475 C6: and then you have to do something that looks like

476 R: Mm hmm.

477 C6: how they do it.

478 R: Mm hmm.

479 C6: in a way or maybe the wind players should be like
[takes a deep breath] really...
Mm hmm (.) the breath.

480 R: Mm hmm (.) the breath.

481 C6: The heavy breath and...

482 R: Is uh (.) is um: (.) just because I conduct Wind Band and I don't get a chance to work with the strings as much, except for in the pit orchestra, but if you have a pizzicato=

483 C6: =Mm hmm.

484 R: and you want to show it. Is it just like a little, would you like actually show a plucking movement or a flick of the finger?
Or...

485 R: Well if it's uh (.) I think if it's a big string ensemble or

486 C6: Mm hmm.

487 C6: a lot of strings, uh (.) I've been trained that it should uh (.) be really precise and clear

488 R: Yeah.

489 C6: and a lot of like (.) boom to get that preparation (0.5) and some action when they are actually doing it.

490 R: Mmm (.) so it's also about the preparation into that moment.

491 C6: Yeah how you want them to (0.5) of course if you want them soft, or if it is...

492 R: Strong (.) o:h yeah.

493 C6: But uh (.) but maybe for, if it's just like a quartet or a quintet, you don't need to do that much because they're probably playing together anyway so:...

494 R: Oh really good.

495 C6: and that will of course maybe change what you're doing=

496 R: =Yeah.

497 C6: maybe it's uh (.) you don't need to be so physical maybe (0.5) just more, to show what you want in the face or...

498 R: Yeah that's, those are really good points, the difference between the full orchestra and a chamber situation.

499 C6: Yeah.

500 R: That's really, those are really good points.

501 C6: Because uh (.) I: (.) when we conduct small ensembles at uh (.) the Music Academy it's, it's really a strange situation because

502 R: Mm:.

503 C6: we're actually training for having a large orchestra.

504 R: Right. [Laughs]

505 C6: We should imagine that we have a large orchestra

506 R: Oh yeah.=

507 C6: =and a large orchestra and then when they're playing

508 R: It's hard because it's chamber. [Laughs]

509 C6: Yeah, and then sometimes you feel that you're just standing in the way

510 R: Mm hmm.

511 C6: because they can do it themselves.

512 R: I know what you mean.

513 C6: But you have to imagine that it's

514 R: Yeah.

515 C6: that it's fifteen more playing.

516 R: Yeah (.) do you think about these little emblems and movements as having shape to them?

517 C6: (2.0) Shape to them in um:...

518 R: Um::: (.) like obviously were not drawing triangles, but sometimes we might do like

519 C6: Oh.

520 R: circles or we might do like
521 C6: Yeah.
522 R: some kind of like you know, sometimes the cut off or you know
523 C6: Mm..
524 R: you might not in the moment (.) think that you're doing that, but some of your movements might have a lot of shape.
525 C6: Yeah uh (.) of course the, the uh: (.) circle movements.
526 R: Mm hmm.
527 C6: Circle movement is uh (.) definitely shows something else than um: (.) than um: (.) you mean like if it's like a circle, or if it's a square or something like that? [Demonstrates a sharp letter L type of movement] Or..
528 R: Yeah.
529 C6: Or could this be one? [Demonstrates a crazy eight movement release gesture]
530 R: Yeah.
531 C6: Yeah, of course I think um: (.) I think this circle is (.) is definitely for me, showing something that of course it's round.
532 R: Mm hmm.
533 C6: If you, so like (.) this I would definitely don't like (.) bop bop. [Demonstrates a quick heavy oval gesture]
534 R: [Laughs] Yeah, you're saying something about the length of the note in that.
535 C6: Yeah.
536 R: Yeah.
537 C6: But uh (.) so the (.) well (.) but, the circle movement in conducting is also uh (.) a kind of technique because it's it's it's I think a way to control the speed
538 R: Mm hmm.
539 C6: because you have the full speed is the same as tempo
540 R: Mm hmm.
541 C6: um: (.) but I've learned that you can go ba ba ba ba ba. [Sings a melodic example with an even tempo]
542 R: Mm hmm (.) mm hmm.
543 C6: Because of this, and they will probably, you don't, you don't show all the...
544 R: Mm hmm, the little=
545 C6: =the the=
546 R: =it just points or..
547 C6: stops all (.) but it's the it's the sound of the well (.) it's the speed of the hand that finds the tempo.
548 R: Mm hmm.
549 C6: So if you have like a circle it could be [sings and example of a tune with a varying tempo]
550 R: Mm..
551 C6: just by the (.) by how you speed the circle in a way
552 R: Mm: mm hmm.
553 C6: I had a guy called _____ he's the um: (.) conductor at [] an orchestra I had a couple lessons with him
554 R: Mm..
555 C6: and and, he said he uses a lot of circles because it can really, really control the orchestra, for example like in Brahms's *Third*.
556 R: Mm hmm.
557 C6: [Sings example] I can't do it now but he used [sings another example in tandem with a circle pattern]
558 R: O::h.
559 C6: just by [continues singing with the circle pattern] just by
560 R: O::h.
561 C6: just by doing a little faster movement here [demonstrates an accelerated motion at near the bottom of the circle]
562 R: Mm hmm.
563 C6: he said that he could make them play it really together, just by using the circle so, but if it was just ba ba ba ba bada this would be a little bit strange.
564 R: Yeah.
565 C6: So uh...=
566 R: =Right.
567 C6: So I think a circle for me is uh (.) something with uh (.) something that's round
568 R: Mm hmm (.) yeah.
569 C6: in music.
570 R: Great, that's wonderful.
571 C6: But um:..
572 R: No that's great (.) in my work um: (.) we talk about salience, which is to me it's sort of um: (.) a gesture or a sound stands out relative to its neighbor sound or gestures, so you have like mm like a fortissimo or a forte piano or something and before it (.) was quite soft, and then you have this forte piano and then soft again.
573 C6: Mm hmm.
574 R: Um: (.) so salience to me is like um: (.) it's this um: (.) a sound or a movement, a gesture, that really spans out because of what happened before and after.

575 C6: Mm hmm.
 576 R: So how does (.) do you think conductors use this idea to their advantage?
 577 C6: Uh hm (.) you're thinking about the contrasts?
 578 R: Mm hmm.
 579 C6: How they're (.) if they're good enough to actually show it?
 580 R: Mm hm.
 581 C6: That's what you're thinking about?
 582 R: Mm hm (.) yeah (0.5) and if you are good enough to show a contrast, is this a tool you can use to your advantage to really help the orchestra to really get what you want out of the sound?
 583 C6: Yeah, I think so. If you're really, but then there needs to be like (.) a really big difference between, between the uh (.) different sounds.
 584 R: Mm hmm.
 585 C6: There should be like uh (.) what does he or she mean now?
 586 R: Mm hmm.
 587 C6: And it should be like (.) really no movements and then suddenly an explosion.
 588 R: Mm hmm, like a drastic change.
 589 C6: Yeah, I think that well it's easier to not do it good, then to do it good of course.
 590 R: Mm hmm.
 591 C6: Because it needs a lot of preparation
 592 R: Mm hmm.
 593 C6: and, and um: (.) control and what I think is difficult in those places is when should you show it and
 594 R: Mm:.
 595 C6: and when you're showing it, is it effecting what's going on at the point, or is it almost effecting what happened in a way?
 596 R: Mm hmm (.) yeah yeah.
 597 C6: It can't effect what happened=
 598 R: =Right.
 599 C6: because time is time (.) but when you're thinking about uh (.) when you're thinking about what's going to happen in one second it's difficult to not effect what's going on at that certain time.
 600 R: Mm hmm.
 601 C6: So sometimes you need to prepare it one beat before and maybe it's actually a diminuendo and it's really soft
 602 R: Mm hmm.
 603 C6: At, at the point that you're showing the next mood.
 604 R: Mm hm mm hm.
 605 C6: Of course, so:..
 606 R: No this is really good, because my next question was going to be [chuckles] which you answered (.) was..
 607 C6: Ah I guess so.
 608 R: No you're so awesome, you like (.) answer my questions before I ask them. I love it. Um: (.) do you think your movements are spontaneous and occur directly in the moment, or are there times when you think (.) like ahead to the sound moment and sort of pre-plan the action that's going to be right there? Which you were just kind of talking about, you know.
 609 C6: I think that musicians are not machines.
 610 R: Mm hmm.
 611 C6: So: (.) so maybe uh (.) of course uh (.) at an early stage, hope I'm not ruining your next question.
 612 R: [Laughs] No: no (.) if you do it's okay.
 613 C6: Okay, at, at like the uh (.) beginning of a process
 614 R: Mm:::..
 615 C6: I guess you need to show things in advance
 616 R: Mm hmm.
 617 C6: but maybe in the concert or uh (.) recording or something you don't need to do it. You can just uh (.) do it together with them.
 618 R: Mm hmm.
 619 C6: That you're that you're actually not showing anything
 620 R: Mm hmm.
 621 C6: the beat before, the bar. No, the beat before, but when it happens you do it together with the musicians.
 622 R: Mm hmm (.) yeah.
 623 C6: I think that must be kinda the logical thing to
 624 R: Yeah.
 625 C6: do because you're just being, playing, playing with them, not not showing anything that is like a machine
 626 R: Mm hmm.
 627 C6: that you need to push enter=
 628 R: =Mm hmm.

629 C6: to do it, but maybe in the beginning you need to do it because you want everyone to do it and then show it really clear.

630 R: Mm hmm.

631 C6: And then when they're doing it as a conductor, you should hear it when they're doing it, you know?

632 R: Mm hmm.

633 C6: Without being told and then you should of course back off

634 R: Mm hmm.

635 C6: or you should just do it together with them at uh=

636 R: =At the time.

637 C6: At that time (.) and that's also with tempos

638 R: Mm: (.) good point.

639 C6: But with (.) because if they can't catch the tempo, uh hm if it's amateurs and maybe you have to show it every time

640 R: Mm hmm.

641 C6: But uh (.) with good players you can just wait, wait um: (.) just go right into the new tempo because everyone remembers it

642 R: Mm: (.) yeah really.

643 C6: And then it would be really stupid to control them when they're in control.

644 R: [Laughs]

645 C6: That would be really arrogant and and bad uh...

646 R: No.

647 C6: bad use of energy and capacity and

648 R: [Laughs] Good points, so now we'll just talk briefly about the testing (.) the three accuracy tests and I'll ask you about each part.

649 C6: Mm hmm.

650 R: Do you think your accuracy tests improved from the first accuracy test to the last one?

651 C6: No.

652 R: Just maybe stayed the same?

653 C6: Well for me I had like, I had like um: (.) first one I had like this room for myself to concentrate

654 R: Yeah.

655 C6: and the last one was really fast you know

656 R: Mm hmm (.) mm hmm.

657 C6: and there were lots of people and

658 R: Hard to concentrate.

659 C6: Yeah (.) sometimes I think I have more energy and more concentration when I can sit

660 R: Mm hmm.

661 C6: by myself.

662 R: Mm hmm.

663 C6: So I:: (.) I feel, maybe I'm wrong because

664 R: No.

665 C6: because if, if it's uh (.) maybe it's not always that the results are, are the same as what you feel

666 R: No no.

667 C6: but I feel that I had more time, and it was easier to concentrate the first time.

668 R: Mm hmm (.) one on one (.) yeah yeah.

669 C6: Yeah.

670 R: Is um: (.) and then I'll just take you through um: (.) this a little bit.

671 C6: Mm hmm.

672 R: Um: (.) in the accuracy test Part One, you were asked to listen to three audios and watch one gesture, or watch one gesture and then listen to three audios and select the sound that fit best with the gesture, um: (.) was one way easier for you than the other?

673 C6: Yeah I thought about this thing uh...

674 R: [Laughs]

675 C6: because yesterday (.) we started with three sound recordings (.) the first one

676 R: Yeah.

677 C6: and then we saw one gesture

678 R: Mm hmm.

679 C6: and for me it's it, it was I think it was difficult to remember which was one, two, and three.

680 R: Yeah.

681 C6: My short term memory fooled me

682 R: Yeah.

683 C6: because I heard them and there was so many

684 R: Yeah.

685 C6: and they were so similar, so I really struggled to remember what was one, and what was two, and what was three.

686 R: Yeah.

687 C6: I remember what was different, but since they came so fast.

688 R: Yeah.

689 C6: I had a problem actually to remember what was what
690 R: Yeah.
691 C6: so I sometimes had to guess.
692 R: Yeah.
693 C6: The first eight were really challenging.
694 R: Yeah.
695 C6: So for me (0.5) I think that um:..
696 R: And then in Part Two...
697 C6: and there were the gestures...
698 R: In Part Two you got to watch three gestures and hear one sound, or you got to hear one sound and watch three different gestures (0.5) which was the easiest?
699 C6: One sound and three gestures.
700 R: One sound first and then see the three gestures was the easiest?
701 C6: Yep.
702 R: And then um:....
703 C6: Because then I had one really strong uh (.) sound and then I could (.) you get three gestures and you can compare what you're seeing to what you remem: (.) what you hear.
704 R: Mm hmm.
705 C6: So, so think for me it's better to have one reference in sound and then see three different physical, kinesthetic movements.
706 R: Mm:..
707 C6: That's definitely best for me.
708 R: And then Part Three
709 C6: Mm:..
710 R: I want to know what you think of this. When you had to have three different audio and gesture combinations and you had to select the audio gesture number that matched the um: (.) the one that made the most auditory and visual kinesthetic sense to you (1.0) what did you think when you had all three combinations and you had to pick the one that you felt was the best match?
711 C6: Yeah I think that was easier than the first definitely uh...
712 R: Because they were together, the sound and movements?
713 C6: Yeah yeah that was easier than the first but, or maybe also a little bit easier than the second, uh (.) yeah, maybe actually I think it was the easiest (0.5) easiest when you have both (.) I think so.
714 R: Mm hmm.
715 C6: So it's like one two three.
716 R: Yeah. [Laughs]
717 C6: Harder, easier, easiest I think.
718 R: Great [chuckles] no that's good. I think you discussed, I'll just make sure I don't run out of time on my tape, but we're doing good. In um: (.) I guess there's just a few more wrap-ups and then we're there. There's something I've observed and I'll just describe to you two scenarios, two situations that I've seen and they're sort of little funny paradoxes to my work with gestures and sound (1.0) and I just want to get your brief thoughts on the situation. So the first situation is um: (.) maybe not as common, but sometimes you see it where this conductor is giving a beautiful expressive landscape of sound and movements, and or no sorry, just movements and affective qualities in his motions, yet the sound of the ensemble is so bland and boring without any shape or phrase or expression so the conductor's really romantic in his imagery, you know (.) but the sound is just bland. Or the opposite where the ensemble is playing beautifully with phrasing and you know affective emotion and um: (.) their timing is varied and the amplitude is you know varied, but the conducting is bland and boring and just a beat pattern (.) without much else going on. And these um: (.) two situations I see in concert performances, so assuming that all the rehearsal work is done (.) and the conductor has done his due diligence, and the players know what the conductor expects, but I still see these (0.5) and I think something breaks down in this communication (0.5) and I just wonder why I see that? And some of it happens at (.) with like (.) the high school level a lot, where the conductors just don't do much, but the ensemble is great, but and then the opposite (.) where the conductor's really romantic, but the playing is boring. So what do you think about those situations?
719 C6: Yeah (1.0) um: (2.0) well (2.0) first of all it's um: (0.5) I guess the first thing I'm thinking about is (.) if an orchestra um: (.) does what a conductor is trying to, to show or to um: (.) if you have a certain idea about how he or she wants it um: (.) there of course there needs to be some kind of communication (.) or it's difficult to maybe do something, if you don't like the conductor (0.5) if he's done something really stupid in rehearsal for example.
720 R: Yeah.
721 C6: If he's lost their respect, or if he's an asshole.
722 R: Yeah.
723 C6: Or maybe he's too friendly or I don't know (.) um: (.) there's no point in playing with him or her, because she's just dull or too nice um:..
724 R: Mm hmm. This can be a complicated thing.
725 C6: Yeah yeah (.) because it involves working with people.
726 R: Yeah that's true.
727 C6: It is.

728 R: Well...

729 C6: So uh (.) maybe like the black and white here is (.) like if you have a respect, I think uh (.) it's difficult not to do what the conductor shows in a way.

730 R: Mm hmm.

731 C6: If he shows it (.) if he has an idea, the conductor is doing something really nice or musical that the orchestra is not doing, then I think that if they know the music and don't need to look at the music, and they had the choice of looking at the conductor or looking or thinking about what they're doing after the concert, then I think it's about the communication between the musicians and the conductor.

732 R: Yeah.

733 C6: But uh (.) and also, we had the lesson yesterday with Per Sigmund, and we were conducting the *Adagio for Strings*.

734 R: Yeah (.) the Samuel Barber.

735 C6: Yeah, and I remember, when I, two years ago (.) we did the same thing, and he told me that I should do much more (.) that I was not showing this big movement that you want the strings to play and then yesterday he told me to do less.

736 R: [Laughs]

737 C6: And then I tried to do everything in the centre not so much, but showing what I wanted, but controlling everything into a smaller space (.) and that was also effective so uh (.) I don't know how it works

738 R: No me either.=

739 C6: =with the orchestra because I'm trying to learn it (0.5) maybe it's because the conductor actually does too much and he's actually standing in front of the music and being more like (.) trying to maybe (.) treating the musicians as machines and, and um: (.) actually thinks that he needs to show everything in order for them to do it. So maybe sometimes it could be that the conductor is too much and then actually just to back off (.) will give space for the musicians to come out.

740 R: Yeah.

741 C6: So and that's also of course, with personality (.) what kind of person you are and how much space you need on the podium. If you think that your musicians can do it right, then maybe it will be good to back off a little bit, and of course you have the conductor who is doing a lot of really like (.) really fancy movements and maybe it's not always always the conductor that's in charge of the thing, but the musicians are doing it themselves so we can actually back off and just listen and enjoy what they're doing.

742 R: Yeah.

743 C6: I have this philosophy, I want to approach this to my conducting when I get, probably if I get a chance to work with professionals someday, I think I would go for this approach, so it could be an explan (.) explanation to your question.

744 R: Thank you (.) I'm going to change tapes so I don't miss, we only have a couple more questions

745 C6: Yep.

746 R: but I'll keep the audio going because I don't want to miss any of your awesome thoughts. [Changes video tape]

747 C6: Ah.

748 R: [Laughs] But no I love your explanation for that [laughs] (2.5) we just have about=

749 C6: =If you use it, you have to quote me.

750 R: Yeah (.) I will, what I do is...

751 C6: In a text or something.

752 R: That's right.

753 C6: [Laughs]

754 R: Actually you know um: (.) what I do is, when I take all your things and I put them all to text

755 C6: Yep.

756 R: and then I select which ones to use, I email you the written of what you kind of said, and then you tell me if that's what you meant and if you want it in there so you still get some choice so I don't paraphrase you wrong or anything. Almost done (.) my archaic little tape, or my archaic little VHS here or I mean mini camera.

757 C6: You should get a hard drive.

758 R: Yeah a firewire.

759 C6: Yeah with a camera with a hard drive in it.

760 R: Yeah (.) I need that, it would be better especially for concerts. [Confirms VHS is running smoothly] Okay we are rolling again (.) Excellent (0.5) we will call this continuation of great thoughts (0.5) um: (.) uh:: (.) I think that's pretty much what I was after I'll just double check my question sheet over here. [Looks at question sheet on table] Before this study, had you ever conducted any of the four marches before?

761 C6: No.

762 R: Okay and what factors influenced your decision to be part of the study? Was Per Sigmund inviting you part of it?

763 C6: Mm hmm.

764 R: Excellent (.) and um: (.) do you feel any of those gestures or emblems, like in my study I'm sort of looking at this little dab and like the press gesture and the glides and the punches (0.5) do you feel all of those you can put in whenever you want to, whenever you need to and execute them?

765 C6: Yeah I think so, but I don't think I did all of the things because of the preparation time and the knowledge (.) because I didn't know the music from before, but I know I can do it.

766 R: Oh yeah yeah, great (.) and were any of those challenging to put in? Did you find some of them easier and others harder or they're all about the same, you can pretty much do them?

767 C6: Uh (.) I see the phrasings [sings melody] I see them faster than the [makes explosion sound] because um: (.) well I think I often look for phrasings or movements, where things are going. I think this comes faster than the dramatic splashes in my mind (.) and I think I need to spend more time with them in a way, than the phrasing.

768 R: Yeah, yeah, um: (.) based on your participation in this study, if I were to come back to Oslo, which I'm not sure I could afford to, but [laughs] if I came back another year and we were able to offer this sort of a program, a small program to um: (.) another group of let's say first year Bachelor conductors at the Academy, would you encourage others to do it?

769 C6: Yeah, yeah (.) I would at the same time say that it probably (.) takes a lot of time, even though it's just one hour.

770 R: Here and there.

771 C6: It's a lot of base and you need to make sure you have time. I would (.) it also depends a little bit of what we learn from it, when you see the video and of course I hope that were gonna learn something from it too. So I think it's a little bit difficult to say right now.

772 R: Yeah.

773 C6: I would of course be friendly and say you should check this out, of course.

774 R: Once you look at your motion capture clips.

775 C6: Yeah I would really strongly say that you should do this, if it's something that I see also a benefit from. It has some obvious things that have come out of it, so it's kind of a little study for me too (0.5) but of course even having this conversation about these things also stimulates my own thoughts so:...

776 R: Good (.) yeah well I'm glad you feel that way.

777 C6: Yeah just new things, thoughts coming up as we're talking about these things uh (.) because I don't think um: (.) just having had been like (.) getting some challenging questions, is also like um: (.) is developing uh (.) your thoughts and maybe, maybe adjusting the brain a little bit sometimes (0.5) so it could be good.

778 R: So perhaps changing your understanding of conducting a little bit (.) or philosophies.

779 C6: Thinking about things is maybe not so stupid.

780 R: No (.) great (.) having observed these little tests, do you feel that you are a better observer of these little gestures having had to look at them in this way?

781 C6: Yeah (.) of the gestures? Um:...

782 R: Yeah picking out and seeing them (.) when I put you through those tests.

783 C6: Yeah I've seen (.) what I've observed is (.) uh (.) head movement, shoulder movement, and uh (.) too high gestures, so I kind of picked out three things that I don't like.

784 R: Yeah, in yourself or in others?

785 C6: I don't know what I did myself because...=

786 R: =I didn't tell you who was who.

787 C6: You haven't told me (.) it could be me of course.

788 R: No no (.) I dunno.

789 C6: I saw some little (.) some little strange head movements and some high arm positions, it's uh (.) so I picked well I've seen something that I don't like (0.5) so if it was me, I think it could be good to see it this way.

790 R: Yeah and you feel you were able to do that better with those skeletons from the motion capture, rather than having the whole video of the body? You could pick them out better?

791 C6: That's difficult to say.

792 R: Yeah

793 C6: I think uh...

794 R: cuz I'll give you clips of both (.) your video and

795 C6: I think both would work

796 R: and the motion capture.

797 C6: the same. Well I think it um: (.) depends on what you're looking at if you're not uh (.) if you're not (1.0) if you're just seeing the points uh (.) well I think it would be about the same.

798 R: Yeah.

799 C6: That if you have a teacher that tells you to look at it, you will definitely see it in both, but um: (.) maybe these are just seeing the dots when (.) if you don't have any teacher that tells you what to look at (.) because when you're looking at the dots you're just looking at the dots, you're not looking at the clothes or the facial expression or anything.

800 R: Or anything.

801 C6: The facial things or yeah.

802 R: Mm hmm yeah (.) oh great (.) that's wonderful. (3.5) Before coming into this, I observed that you are very capable of communicating your phrasing and your shape with your gesture.

803 C6: Mm hmm.

804 R: So that was one of my questions to the participants, you know, do you consider yourself more capable to do that? I think you came into my study already being able to do that, in my own opinion. But um: (.) do you think um: (.) in any way it has helped you think about how you do that?

805 C6: Uh...

806 R: To communicate, you were saying to me like (.) the phrasing and the shape is easier for you (.) than the little major moments, maybe.

807 C6: Yeah the energy things, the bur rahr things (.) um:...

808 R: So perhaps (.) in my study I think you already have this awesome ability to do the shapes and the phrasing. So I don't know if you feel you really like (.) gained ground in that but um:...

809 C6: Um: no.

810 R: Yeah (.) probably more so in the other little emblems, I don't know.

811 C6: Yeah I think uh (.) I think actually these questions have been the most uh...

812 R: Helpful to think about the whole.

813 C6: Yeah that we're having a conversation about things. I think it's been more uh...

814 R: Food for thought.=

815 C6: =inspiring for me.

816 R: Yay it is for me too actually.

817 C6: But um: (.) but I've learned (.) well what challenged me (.) was the thing that I couldn't say anything, that was uh (.) that was a nice process (.) because then I just needed to say for example, when I wanted to show something in practice like, "bar five I'm gonna show something look what I'm doing" and it worked in a way.

818 R: Yeah.

819 C6: The second time it worked.

820 R: But you couldn't describe technically, you just had to show.

821 C6: Yeah (.) so that you told me that, "just say the bar and don't do anything else" that's the thing I think I benefited from because when I made the next time, when the situation like that comes up, I would think, Wendy says I shouldn't talk too much (.) maybe I can show it with the gestures instead of saying it, because it's like a reminder that you shouldn't talk. You don't need to be reminded that you should talk.

822 R: I know, it's true. One of my mentors he said you know, "say it in seven words or less" and I'll never forget that (.) because I like to talk a lot (.) and I like these interviews the best too (.) great. I think I'm at the conclusion, but I just wasn't to say that um: (.) I thank you for your time (.) and your energy (.) and your commitment to the project, and it's been a real pleasure to work with you, and I very much value these insights that you're sharing. I think it allows me to dig deeper into this whole idea between the relationship between gesture and sound, and to me (.) this sort of qualitative analysis of these interviews (.) I think is going to be the most valuable to the entire study um: (.) because it's the way that we think about what we do and how we do it, that really gets at what I'm trying to get at. So thank you for being a part of this and for giving your time and=

823 C6: =No problem.

824 R: and for giving your insights. Do you have any final thoughts? We can have an espresso at the end too by the way.

825 C6: Final thoughts.

826 R: But yeah no (.) it's been a pleasure.

827 C6: So you want to do this again, maybe? Or are other people coming over and doing it?

828 R: Um: (.) I have um: (.) you mean like this type of study?

829 C6: Yeah.

830 R: Well in my PhD I will do it one more time, a similar thing with undergraduate Music Education students at my home university (0.5) and it won't be with orchestras, it'll be with another chamber wind ensemble, but it will be with another six undergraduate conductors, you know (0.5) and they'll go through a very similar framework. But this has been really great because um: (.) it's sort of really sets the ground work for what I'm gonna do later this year and uh (.) I think I'll be able to get um: (.) hopefully write a lot of significant things on paper, you know (.) to be shared with other conducting teachers and other conductors (.) so yeah.

831 C6: Are you going to write a kind of PhD thing on this?

832 R: Yeah my thesis or dissertation is on this.

833 C6: Yeah but when is it?

834 R: Oh when is it due?

835 C6: Summer?

836 R: Yeah (.) like (.) I'll probably at the end (.) like (.) I have the whole year to finish up the data and studies and writings and then probably the following year or two, to have it completely published and defended. I'm about two years in and it'll probably take me four years or so (0.5) but it would be good to finish in one year, but with three kids I don't know if I'll be able to do it.

837 C6: It's interesting about you're being a conductor too, and it's different to see how (.) well (.) different conductors are interested in different things, I mean you're definitely interested in, also in the scientific aspect around it (.) it uh...

838 R: I think it's helped me be a better artist, though I must say, I threw myself into the motion capture lab um: (.) because we had an opening, so (.) I did conduct the four excerpts as well, and I used the clips (.) the motion capture clips (.) to really look at my own motion closely, and I really think I've grown as a conductor (.) from just doing these studies (.) in my own personal artistry. So that's great.

839 C6: Cool (.) so I haven't heard about it before, that's the uh (.) this is not something that teachers, conducting teachers use. I haven't heard about it.

- 840 R: No it's pretty um: (.) new to use it with conductors, we use it for like (.) sports people for like (.) golf swing and for um: (.) different dance performance studies they use it, they use it for biomechanics too for certain like (.) getting at the muscles and the way they work and things like that, but it's relatively new to use it with conductors. But conducting is such an amazing art form, that I thought how could I not? But then it's hard because it can be very quantitative with the movement, but my idea to use this, is not to say that you should do this gesture this way, and every conductor should do it that way, and this is the way you have to do it. No (.) I don't want to do that, so I'm not trying to make an only way to do things, but I want to um: (.) get into like (.) what actually happens in the movements.
- 841 C6: You should have yourself a clip of the Venezuelan conductor (.) Gustavo Dudamel, you should put some points on him and do some motion capture.
- 842 R: That'd be amazing.
- 843 C6: That would be really strange (.) he'd look totally different than we do (0.5) and you know, I went to the Symphony on Friday, and watched the Gothenburg Symphony (.) that was really interesting (.) he's really high up here [lifts arms to reveal a higher conducting plane] and energetic so that was really, and he came to the pub afterwards (.) so I got a chance to say thank you to him for the concert. And he sat in my (.) you know, they took our table and he sat in my chair, so I was getting (.) really a lot of bad energy.
- 844 R: No no (.) you get his good energy.
- 845 C6: So yeah (.) well (.) but yeah, then I should sit there after him, but um: (.) if he fucks up in Los Angeles, it's probably because he sat in my chair.
- 846 R: Oh no no no.
- 847 C6: That's my final statement for the interview.
- 848 R: Well that's a good final statement. Well thanks again for all of your hard work and everything (.) I appreciate it. [Turns off the recording devices]

Conductor Seven

- 1 R: [Starts the recording devices] Good, so we will begin. State your name in full.
2 C7: Uh::: _____.
3 R: And how old are you?
4 C7: Uh::: twenty-two.
5 R: Great (0.5) and you're currently enrolled as an undergraduate student at the University of Calgary here?
6 C7: Yep.
7 R: And what is the field of your study here?
8 C7: Uh::: performance (.) guitar
9 R: Hmm::.
10 C7: classical guitar performance.
11 R: Hmm::: (.) and (.) what year of your program are you in?=
12 C7: =Second.
13 R: Second (.) great (.) and have you taken:: any of the undergraduate conducting courses yet?
14 C7: No.
15 R: Oh good (.) and um (.) have you ever taken any (.) private conducting lessons?=
16 C7: =No.
17 R: Great (.) um (.) that's good because in my study, we don't want the participants to have too many (.) preconceived notions about what conducting is before they jump in and try some things (.) and I think in your case it was to your advantage (.) to not have um:: (.) too much training, you had a really (.) an open mind.=
18 C7: =Like I said, this was my first time conducting anything.=
19 R: =Yeah:: I was so surprised (.) I couldn't believe that.
20 C7: So (.) yeah (0.5) I never conducted anything
21 R: Huh.
22 C7: cuz we just go to class and then we go practice for the classic guitar ensemble and we're not really a part of anything else.
23 R: Right, yeah (.) you do your classes and then do your lessons with your studio teacher
24 C7: In the Music Department (0.3) yeah we do our own thing (1.0) yeah exactly.
25 R: and everything. Yeah::: that's good.
26 C7: Yeah:: so this was my first time, that's why I took it, I just wanted to like (.) try to conduct a few things.=
27 R: =Yeah (.) no I am glad that you did and (.) now::: (.) I think that, um:: (.) hopefully, that having done this, then you'll also have this sort of advantage in your conducting class that you have some idea of what gesture is outside of the pattern=
28 C7: =Hmm::.
29 R: outside of learning how to do the (0.3) you know (.) um::: whatever, whatever they call it, I don't even know what the terms floor window (.) window ceiling, huh, something like that, or [laughter] I don't know.=
30 C7: =Oh.
31 R: Window ceiling, window flooring I don't know, anyway (.) um:: (.) but no, that's great (.) and (0.5) um: (.) I also wanted to ask you (0.5) had you ever (.) um:: been (.) been familiar or conducted those march excerpts (.) well the little clips before (.) that came from the *Washington Grays March*, the *Barnum and Bailey's Favorite*, *March Opus 99* or the *Florentiner March*?=
32 C7: =No.
33 R: Great (.) um (.) had you ever (.) um: (.) heard them concerted?=
34 C7: =No.
35 R: Okay, great. (1.0) That's also kind of nice (.) if I were to use like Beethoven's *Fifth* or something, clips from that (.) obviously everyone knows that, the opening right?=
36 C7: =Hmm::.
37 R: So I tried to choose clips that were (.) well known for (.) band, but not necessarily for (.) um:: (.) people in choral or guitar, or voice or:: um:: (.) in other uh::: studies, areas of study.=
38 C7: =Hmm::.
39 R: So which of the gestures (.) were (.) easiest to incorporate into your conducting, so in my study we had, a sort of a pressed [shows movement] gesture:: which is strong:: and sustain::ed, we had (.) um: (.) a light (.) gesture which was sustained, a kind of a glide [shows movement] and then we worked with um:: (.) or we observed in people a little dab gesture which was very light and then a (.) kind of a big punchy gesture. [Right fist punches left hand]
40 C7: The punchy.
41 R: Was easiest?
42 C7: Yeah.
43 R: Yeah?
44 C7: Cuz you can easily spot them and you can easily react to them right way.
45 R: Yeah.=
46 C7: =Um::: like a drum:: or you know there's that strong beat. As soon as you get familiar with the sound, you know where the strong beats are (.) and then you can sort of just punch them.

47 R: Yeah.=

48 C7: =So I think that's really the easiest.

49 R: Mm:: hmm (.) and then, and the most difficult one for you:: to::

50 C7: Um:::....

51 R: make a connection with?

52 C7: I would say the gliding ones (0.2) u::h (0.3) it's just because (.) with those very short excerpts you wouldn't, it's not like you have a violin melody where you have a long sustained note that you can glide to it.

53 R: Yeah.

54 C7: So you have to figure out where that you would glide (.) u::h I think, the only place that I would think of (.) is when we have really fast sixteenth notes and you would just (0.3) assume they are just one big note

55 R: Yeah::.

56 C7: and just glide it (.) and then punch in.

57 R: Yeah [laughter]and punch at the end.

58 C7: And then punch in.

59 R: [Laughter for 1 second]

60 C7: Yeah.

61 R: I know, in some of the little excerpts although they were only two to three seconds long, they definitely had some kind of a glide punch ending.

62 C7: Hmm::.=

63 R: =Yeah, or they were combined

64 C7: Hmm::.

65 R: like some of them were purposely chosen that would have a couple things in there, to see what you would do at the beginning and at the end.

66 C7: Hmm::.=

67 R: =M::: hmm: (1.0) oh good and (.) what factors influenced your decision to take part in this study?

68 C7: Oh. (.) um:: I wanted to try (.) I just wanted to try conducting

69 R: Hmm::.

70 C7: and I wanted to do the motion lab

71 R: Yeah::.

72 C7: and::: I thought it was really cool to be in a PhD study.

73 R: Yay. [Laughter]

74 C7: And, and Ali asked me to meet with you. [Laughter]

75 R: Yeah no, I'm so glad he did and because I know of course some of the students that I've worked with in the pit orchestra here (.) for the operettas, and I know maybe a few other students that I might have worked with (.) uh through their Music Ed class or maybe through my Calgary Concert Band connection, but I don't know a lot of the vocal students or guitar students or u::m (.) um basically the non u::m band students. [Laughter] So::

76 C7: Ya (.) exactly.

77 R: so it's great, I'm really glad Ali um (.) knew you and said, "hey _____ would be really great you should have him be a part of this and I he'd really enjoy it." So I'm really glad he encouraged you to come

78 C7: Yeah.

79 R: check it out. [Laughter]

80 C7: Yeah, yeah me too it was, it was (.) I:: um: (.) I'm always up for new things.

81 R: Yeah.=

82 C7: =I think maybe that's the biggest reason.

83 R: Yeah.=

84 C7: =Yeah.

85 R: Which is great because then (.) you can take advantage of all these opportunities that come your way.

86 C7: Yeah, definitely. Yeah (.) you don't want=

87 R: =Yeah.

88 C7: to spend four years in the practice room:: I guess.

89 R: Yeah.

90 C7: Yeah.

91 R: Exactly, oh that's so true.

92 C7: Yeah, might as well do something.

93 R: [Laughter]

94 C7: [Laughter]

95 R: Yeah (.) no I totally agree, I think that it's important to (.) absorb as much as you can and be a part of as many different things as you can be a part of and everything that the University has to offer. (0.5) which includes many (.) courses of different (.) styles from world drumming to (.) to uh (.) to (.) to this type of thing, so that's great. (0.5) Good um:: (.) then um: (.) in my field we talk about this notion of tracing a sound, and by that I mean (.) that your movements are done:: or performed with the intension of sort of drawing the soundscape.

96 C7: Hmm::

97 R: Do you (.) feel that (.) when you were in the motion capture lab that, that your movements (.) were made to reflect that idea?

98 C7: Some of them (.) some of the (.) the easier sounds yes

99 R: Hmm::

100 C7: but the harder the sound (.) the faster the sound, the harder it is (.) too, and the shorter the sound clip is (.) the harder it is to really paint because you just want to catch up with it right away.

101 R: Mm:: hmm.=

102 C7: =But um: (.) there were a few of them that after a while they just got (.) you just had an idea of what to do with them (0.5) so I think yeah (0.3) it's more like following the contour of the sound I guess, as well.

103 R: Hmm:::

104 C7: So:::

105 R: That's really neat.

106 C7: I:: think...

107 R: That's a really neat explanation. (0.5) I like that idea (.) following the contour of the sound.

108 C7: Yeah, so if it's going up you might as well go up and

109 R: Mm:: hmm::

110 C7: with, with your gestures (.) right?

111 R: Mm:: hmm.

112 C7: Um:: (.) if it's slow then be low, if it's depressed, then be depressed.=

113 R: =Yeah.

114 C7: No I'm kidding. [Laughter]

115 R: No I don't think (0.3) I think you have some very valid thoughts (0.3) you have to make an emotional connection too:: to things (.) what the music is doing:: in the:: sort of note range (.) which you were commenting on, and then also what the music is doing, um:: (.) which would be more the tonality and harmony that might reflect an emotion which (.) I think it's really important to recognize that (0.5) music is (.) is emotional and then (.) inside that context it could drive a different type of movement.

116 C7: Hmm::

117 R: Mm:: hmm: (.) hmm: (0.5) why are some gestures (.) good or appropriate for a wide number of sounds?

118 C7: Hmm::: (.) oh boy this one is a hard one.=

119 R: =Yeah, well this is something I really struggle with and (.) I::ll (.) I'll point you in a couple different directions.

120 C7: Hmm::

121 R: Um:: (0.5) I often:: (.) and I don't know if it's because (.) there are so:: many sounds (0.3) and (.) not enough gestures that fit with them or:: (.) a way to manipulate the (.) three dimensionality of our gestures, or if there are so many sounds that are alike (.) a::nd so we often do:: a similar gesture that fits with it.

122 C7: I think (0.5) while (0.2) I think part of it (.) is because we are either (.) in uh concert (0.3) settings (.) either you're limited, you're either trying to catch up with the music, or you're (0.3) or in non-concert settings I think the imagination is a little limited (.) because (.) it's just like your said, we have so many sounds (.) and we, and we like to categorize them right? So we have percussion sounds=

123 R: =Uh huh.

124 C7: we have gliding sounds, it's just like you said, we have those four motions

125 R: Yeah.

126 C7: so, the brain automatically wants to go (.) and try to categorize each sound with those four motions, and instead of having (.) twenty motions to choose from=

127 R: =Yeah.

128 C7: it's a lot easier to do four, and pick one (.) then you know picking one (.) from (.) endless possibilities right?

129 R: Yes.

130 C7: A::nd (.) I think it takes a lot of experience to be able to imagine all the different (0.5) so let's say you have a punch, but you have (.) you know, twenty punches

131 R: Mm:: hmm::=

132 C7: =it takes a lot of experience to choose just one of them (.) right? So:: (0.3) but I think in general (.) we categorize them so it's:: it's- it's good (.) that we have a punch for a very, you know (.) strong percussive beat, cuz then if you're not following you can s::ee it.

133 R: Mm:: hm.

134 C7: Right? =

135 R: =Mm:: hmm.

136 C7: I know that's very important for me as a player

137 R: Yeah.

138 C7: that if (.) if the punch is not strong enough (0.3) then I might not see it (.) because I'm always looking at the conductor with (.) with the back of my eyes as I would say.

139 R: Yeah, in your periphery kind of.

140 C7: Yeah (.) yeah, exactly right.

141 R: You've got your eyes on the music

142 C7: Yes.

143 R: and the conductor kind of at the same time.=

144 C7: =Yeah, so if the punch is not strong (.) then I am going to completely miss (.) where I have my note (.) here, where it says punch.

145 R: Mm: hmm:.=

146 C7: =Right, and if the conductor practices (.) in the rehearsals a big punch, and then in concert there is no big punch

147 R: Mm hmm.

148 C7: then (.) I always blame it on the conductor, because I'm like, well (.) you should do what you did in the rehearsal because that's how we practiced it (.) right?=
 149 R: =Oh, this is good.

150 C7: Yeah.

151 R: This is good because um:: (.) and-and it's a thing we will get to later (.) about sort of some concert observances and um (.) how it can be different from rehearsal to concert performance and, but I really like that comment because (.) I'm more to that philosophy, if I have my ensemble and we practice and we really (.) I really want this sound and I've been showing it this way (0.5) it's kind of confusing to players to then show it a different way:: that (.) they'll wonder like (.) oh does she want it lighter now, cuz she cha::nged, right?=
 152 C7: =Hmm: (.) there is...

153 R: So I think consistency is good.

154 C7: Well there's that debate between a conductor and like (0.5) in one of the ensembles I mean, there's this piece (.) that is kind of difficult and it goes right in

155 R: Uh huh.

156 C7: there is no break in between and you have to lock into the change of tempo right away.

157 R: Yeah.

158 C7: So what we do in rehearsal is: we go:: so we stop that piece, and then (.) three (.) four and then we start.

159 R: Yeah.

160 C7: It's:

161 R: So two beats in the middle?

162 C7: those three, four

163 R: Yeah.

164 C7: is all that we need=

165 R: =Yeah.

166 C7: to lock into that rhythm.=

167 R: =That's right.

168 C7: And then in the concert (.) there was no three four, it was [snaps fingers] just right in.=

169 R: =Oh.

170 C7: And then

171 R: Oh::: [Laughter]

172 C7: and then, and then everything.

173 R: Wha::t?

174 C7: Yeah (.) exactly, everybody took about (0.5) you know (.) eight to nine measures

175 R: To get settled.=

176 C7: =to get back to it.

177 R: Right.=

178 C7: =but then (.) the eight to nine measures were gone and it's all about the entrances.=

179 R: =Mm: hmm: (.) mm: hmm.

180 C7: You know if you're doing serious music=

181 R: =Mm: hmm:.

182 C7: u::h (.) that doesn't allow for such freedom.

183 R: Right.

184 C7: Then (.) right (0.5) and then the debate was:

185 R: Yeah::.

186 C7: um::: after that (.) the debate was (0.3) well (.) the conductor has the freedom to change whatever, it's up to the performers (.) responsibility to keep looking=
 187 R: =And to adapt.

188 C7: at the conductor and keep adapting.

189 R: Yeah.

190 C7: Well, even though that's good, because each performer has different energies.
191 R: Right.=
192 C2: =but (.) I: (.) I like to go in with a plan.
193 R: Yeah.
194 C7: And it's within the plan that I work.=
195 R: =Yeah.
196 C7: I don't (.) it's just like when you have your paper, you don't write a new idea in your conclusion.
197 R: Mm: hmm.
198 C7: Right?
199 R: Mm: hmm.
200 C7: The conclusion is that's it.
201 R: Hmm.
202 C7: So I like to go into the concert (.) and this is my conclusion of all the practice.
203 R: Mm: hmm:: (.) mm hmm.=
204 C7: =So I think
205 R: Yeah.
206 C7: that's, that's why it's important that the conductor sticks
207 R: Yeah.
208 C7: to that plan.
209 R: At least to some basic things li:ke
210 C7: Hmm:.
211 R: starting and ending.
212 C7: And the tempo doesn't change.
213 R: Yeah.
214 C7: It's at that tempo (.) right?=
215 R: =That's right, exactly.
216 C7: The dynamics are easier to play with, but things like tempo and
217 R: Hmm:.
218 C7: uh:: you know (.) stuff like that that you have to (.) make sure they're consistent.
219 R: Absolutely.
220 C7: Yeah.
221 R: [Laughter] Absolutely.
222 C7: Yeah.=
223 R: =You should come in and talk to um::
224 C7: [Laughter]
225 R: some in the conducting class. [Laughter]
226 C7: Oh yeah. [Laughter]
227 R: I'm serious.
228 C7: I should.
229 R: No, I'm serious because these are the things that upset musicians
230 C7: Mm: hmm.
231 R: when the::y work with conductors, it's like (.) there are some inconsistencies and some things just have to be there for the performance not to get off.=
232 C7: =Well we have (.) yeah (.) the reason I say it (0.3) is because, you know (.) I was waiting the entire, like all the rehearsals I was getting so excited for that piece
233 R: Yeah::.
234 C7: because I love that piece
235 R: Yeah.
236 C7: and then it came and I just felt like I couldn't do it because of that (.) you know=
237 R: =Hmm.
238 C7: because I was like ok, well (.) I was completely caught off guard=
239 R: =Yeah.
240 C7: and I had to like (.) the whole section was caught off guard
241 R: Yea::h.
242 C7: so we were like, ok well, what can we do? It's not, it's not really...=
243 R: =Yeah (.) no no, you just cope in the moment, right?=
244 C7: =Yeah (0.5) I thought it was my mistake and then I asked around and everybody was agreeing, so ok
245 R: Yeah.
246 C7: I realized it's not me.

247 R: Well yeah, no (.) then you don't feel as bad, like you let the team down or anything.
248 C7: Yeah.=
249 R: =Yeah (.) what are some properties or elements of sound that change frequently and require an action (.) to help encourage them?
250 C7: Elements of sound?
251 R: Yeah, so something that we find in sound (.) that would require the conductor to make a movement (.) to reflect the change (.) in the sound.
252 C7: Well I would say::: (.) oh there's (0.2) almost everything.
253 R: Mm: hmm.
254 C7: There was the energy of the sound, and by that I mean (.) um: (.) tempo of the sound (.) um:: intensity as in volume
255 R: Mm hmm (.) mm hm.=
256 C7: =um::: (0.3) well that pretty much actually covers almost everything, cuz you can't really play with a tone of the sound.
257 R: Hmm:.
258 C7: If you're on the guitar maybe (.) because
259 R: Right.=
260 C7: =you can do all the those things, but I know some other instruments you can't. Vocally you can
261 R: Yeah.=
262 C7: =control the texture of the sound, but I'm not really sure you can conduct that.
263 R: Hmm:.=
264 C7: =I mean if you're on the guitar (.) you can't really conduct, okay go back to the bridge.
265 R: Yeah. [Laughter]
266 C7: It's just that (.) but I would say (.) definitely the volume
267 R: Mm: hm.
268 C7: and:: (.) definitely the energy of the sound (.) it wouldn't make sense to see (.) a dancing conductor you know, in a:: (.) in a slow tempo.
269 R: Mm: hmm (.) m::hmm:.
270 C7: I mean (.) and even sometimes if you're in four-four, but the piece is fast then just conduct it (.) in two-two.
271 R: Mm: hmm.=
272 C7: =Right?
273 R: Mm: hm.=
274 C7: =And then just so that it simplifies (.) and I think that makes it a lot easier to (.) lock into that
275 R: Hmm:.
276 C7: uh:: (.) mood.
277 R: Yeah (.) oh yeah. I think what you said is really key (.) about locking into a mood (.) because a lot of music (.) um:: (1.0) if you have the right energy you have (0.5) which is often reflected in getting just the right tempo, but it sets the right mood then=
278 C7: =Hmm.
279 R: which is more appropriate to the music.
280 C7: Yeah (.) exactly and by then (.) you have to do so much research about the piece::
281 R: Mm: hm.=
282 C7: =and what's the goal of it
283 R: Yeah.
284 C7: and what do you want to do and then the whole performing thing (0.5) what's:: (.) what's your (.) what's your intention of getting that piece out, and if you want that piece, to be you know (.) an energetic dance
285 R: Mm: hmm.=
286 C7: =to end the concert
287 R: Mm: hmm.
288 C7: then it has to be an energetic dance at the concert.
289 R: Yeah.=
290 C7: =You can't be all tired (.) and then just do the beat.
291 R: Right. [Laughter]
292 C7: You have to be consistent that way
293 R: Yeah exactly.
294 C7: for the musicians (.) so:::..
295 R: No, that's exactly right and I think um:: (.) I like the way you talk about that (.) because often we get so:: caught up in the technicalities
296 C7: Hm::.
297 R: that we kind of forget about (.) the energy and what we're actually trying to put there=
298 C7: =Exactly.
299 R: in the larger, the bigger picture (.) I guess.
300 C7: Yeah.=

301 R: =Once you have all the technique (.) we can't forget about the bigger picture, so::...=
 302 C7: =I don't know. I think because of us we (.) like (.) we already take care of the technique ourselves
 303 R: Mm: hmm.
 304 C7: so I think that's (.) that's like our responsibility.

 305 R: Yeah.=
 306 C7: =In the chorus, I don't (.) I'm not sur::e about that because I'm not a singer
 307 R: Yeah.=
 308 C7: =but in the guitar ensemble (.) the-the technique (.) like (.) we take care of the technique and then we walk in (.) fully for the purpose of (.) just the music.
 309 R: Mm: hmm.=
 310 C7: =We don't really cover anything about the technique
 311 R: Yeah.
 312 C7: unless there's a big problem.=
 313 R: =Yeah.
 314 C7: or someone is not sure.
 315 R: That you have to fix.
 316 C7: Yeah.
 317 R: Yeah.
 318 C7: So I never really worry about the technique that much.
 319 R: Hmm:.
 320 C7: So::
 321 R: Yeah.
 322 C7: but like I said (0.5) my (.) my musical background is different (0.3) like I've never done band music or anything, so I wouldn't know (.) what
 323 R: Huh.
 324 C7: what their environment is.
 325 R: Yeah.
 326 C7: Yeah.=
 327 R: =No problem. Do you think some of our emblematic gestures that you know (.) are strongly linked or hardwired to particular sound moments?
 328 C7: Uh::: you mean those four gestures?
 329 R: Sure (.) like if you hear this (.) ba da da, ba da da, ba da da, boom [laughter] and the::n maybe in another piece you hear (.) maybe a (.) a slightly different intro, but the boom at the end is pretty much a boom. [Laughter]
 330 C7: Hmm:.
 331 R: Do you think you're hardwired to use a (.) a similar gesture in that (.) moment?=
 332 C7: =Yeah, I think so.
 333 R: Cuz then, I just use the march for example (.) because we get a lot of these big hits whether they're cymbal crashes o::r bass drum booms (.) w::e get like (.) kind of a little pattern like that (.) ba da da, ba da da, ba da da (.) and then something big. So if you hear a similar type of patter::n, and then a big hit at the end (.) you would be driven to do a similar thing, do you think?
 334 C7: I would (.) I would assume so (.) I wouldn't think that I would be able to devise (.) like I said, devise a new movement
 335 R: Mm: hm.
 336 C7: for every single sound.

 337 R: Yeah.=
 338 C7: =Right? But uh:: (.) you know, when I say that, like the same punch it's not going to be (.) the same exact punch
 339 R: Uh huh.
 340 C7: with the same axis, right?

 341 R: Oh yeah.
 342 C7: Cuz they are always going to be little bit different (0.5) but it's this, I would say it's the same choice (.) of movement.=
 343 R: =Mm: hmm.
 344 C7: So:: you know (.) I wouldn't (.) replace the punch with a light (.) tip.=
 345 R: =Yeah.
 346 C7: but it would always be a punch
 347 R: Yeah.
 348 C7: but the punch is different.
 349 R: Yeah.
 350 C7: Right?
 351 R: Yeah-yeah.
 352 C7: So I think, I think that's (.) what it would be.

353 R: Yeah, I agree. (1.0) In creating these emblems that occur in sound moments (.) do you think about your movements as having different dimensions (0.5) the um:: (.) the x dimension being sort of the back and the front [moves in the described manner], the y dimension being right to left [moves in sync with the described directions], and the z dimension being up to down? [Moves in sync with the described directions]

354 C7: Um::: (.) to be honest, I wouldn't be thinking about the axis when I'm moving.

355 R: No?=
356 C7: =I would just be thinking (0.3) cuz when we were in the motion lab you have all the space that you need

357 R: Mm: hmm.=

358 C7: =but I think (.) if you were in a concert environment where you have this amount of space (.) then you::: (0.5) I think it just comes natural that you would try to get (.) to stay where you are (.) but um::: (.) but there are a lot of (.) concerts that, it's funny that you mention (0.5) there are a lot of concerts... I really like it when the conductor (.) extends into (.) the orchestra, like leans over to them=
359 R: =Uh huh.

360 C7: verses standing away from them (0.5) cuz I really don't like the conductor to be away, I like the conductor to be (.) inside the motions sort of thing

361 R: Mm: hmm (.) mm: hmm.

362 C7: which really brings him into the middle of the axis (.) if you wanted.=

363 R: =Mm: hmm.

364 C7: If (.) that makes sense?

365 R: Yeah.

366 C7: I think so.

367 R: Yeah.=

368 C7: =Now up and down jumping, I don't know.

369 R: Yeah.

370 C7: I've never seen jumping=
371 R: =No?

372 C7: but, it's nice to have a little bit of (.) you know (.) a little bit of upward motion because (0.3) that gives you, it's just like with the dynamics when they say, you know (.) instead of going this way, go that way

373 R: Mm: hmm.

374 C7: then when the conductor, instead of going this way, the conductor could go (.) you know

375 R: Hm::.

376 C7: even further up.

377 R: Mm: hm (.) mm::hm.=

378 C7: =And that really extends because the more you exaggerate in reality or not exaggerate (.) then you're just, you think you're exaggerating but (.) people when they see you (.) they don't see an exaggeration, they see something=
379 R: =Right.

380 C7: and whenever you push that thing, then they see an exaggeration.

381 R: Right.

382 C7: Right (0.3) so you have to do it.

383 R: That's right.

384 C7: Yeah, so they have to set it for them.

385 R: Yeah (.) an::d um::: (.) in my:: field we talk about salience, which is:: (.) kind of this notion of (.) um::: (.) a sound:: or gesture stands out relative to its neighbour sounds or gestures. So:: a big (.) sound let's say (.) is preceded by a soft sound (.) and then is followed by another soft sound. So this notion of salience (.) do you think that um::: (.) conductors use that to their advantage?

386 C7: Hm:::.

387 R: This notion of salience, what comes before and after a big musical moment.=

388 C7: =Maybe, I think so (.) yeah definitely (0.3) it helps them drive, it helps them plan (.) their movements

389 R: Hm::.

390 C7: an::d it definitely (.) with the mood like we said, it-it definitely helps (.) pouring out where, where the piece is going=
391 R: =Mm: hmm.

392 C7: u::m (.) this way you can create like, like we said, the contour (.) right?

393 R: Mm: hmm.

394 C7: So (.) if the music has contour then the conducting is going to have contour as well.

395 R: Hm:::.

396 C7: =So:: might as well (.) follow the contour of the music, it doesn't make sense (.) to go the opposite ways.

397 R: Right.

398 C7: Right (.) so

399 R: Yeah (.) oh exactly.

400 C7: yeah, so the conductor is (.) is aware of where the high points and the low points are (.) and if there's a relationship between them

401 R: Mm: hmm.

402 C7: and might as well, you know
403 R: Mm: hmm.
404 C7: incorporate that (0.3) into the (0.3) music.=
405 R: =Yeah, I agree.
406 C7: Hmm:.
407 R: And you mentioned this thing about planning... Do you think that (.) your movements or our movements are spontaneous and occur directly in the moment, or are there also times when you think ahead too (.) in your mind (.) um:: (.) and preplan your actions?
408 C7: Um:: (.) in this study it's a little bit different because it's always (.) you don't really know (0.3) but I mean
409 R: Yeah. [Laughter]
410 C7: I think if I am conducting a piece
411 R: Hmm:.
412 C7: um:: (.) and let's make it a simple piece.
413 R: Sure. [Laughter]
414 C7: If I'm conducting a piece (.) I would (.) I would draw all my notes in, in order (.) what to do in each (.) bar for example=
415 R: =Mm: hmm.
416 C7: but I wouldn't (.) go to the point of (.) practicing an act.
417 R: Mm: hmm.=
418 C7: =If you know what I mean?
419 R: Yeah:..
420 C7: I would, I would (.) make sure I know where the beat is, I would make sure I know where the music is going=
421 R: =Mm: hmm.
422 C7: and then:: (0.3) it's my job to make sure that (.) I've (.) like I said, it's the contour of music, that word again
423 R: Mm: hmm.
424 C7: u:h (.) but it's my job (.) if (0.3) what I mean is (.) just leave room (.) for, for me to enjoy the performance=
425 R: =Yeah.
426 C7: cuz a plan is different than an act, and I don't want
427 R: Yea:h.
428 C7: I don't like an act. I don't like people acting on stage.=
429 R: =Yeah.
430 C7: It's (.) you can really spot it right away.=
431 R: =Oh yeah.
432 C7: Yes.=
433 R: =Absolutely, absolutely.
434 C7: So, so if you go in with the idea of okay, I know where the beat is (.) then you've done your job, you're professional.
435 R: Yeah.
436 C7: And if you go in and you know (.) who's:: (.) got the (.) cues and all that.
437 R: Entrances?
438 C7: Yeah (.) exactly.
439 R: Yeah, all those main things.
440 C7: Then you've done your homework.
441 R: Yeah.=
442 C7: =Now it's just a matter of time (.) if in that moment (.) it's (.) you're really into it, it's really loud
443 R: Mm: hmm.
444 C7: everybody's listening, everybody's looking at you=
445 R: =Yeah.
446 C7: then you:: might as well (.) give back the energy right?
447 R: Mm: hm (.) mm: hm.
448 C7: So by that (.) then, then it's spontaneous.
449 R: Yeah.
450 C7: Right.
451 R: Yeah.=
452 C7: =You can't (.) you can't plan that.
453 R: No
454 C7: It's just
455 R: no::.
456 C7: if you really want to (.) you know smile
457 R: Yeah.
458 C7: and have a big open mouth, then might as well go for it.
459 R: Yeah (0.5) yeah.

460 C7: Right, you don't (.) you don't write down "big open mouth."=
461 R: =Yeah-yeah you don't (.) put that in your score study. [Laughter]
462 C7: Yeah, exactly, if you do that then well (.) I don't know.
463 R: I like what you said about um: (.) about that (.) because (.) it's nice to be:: (.) in my mind to have a little bit of both (0.5) you sort of make pre-plans of movements that go with the sounds that you obtained your vision from:: the score studying
464 C7: Mm:: hm.=
465 R: =and then um: (.) it's also good to be open in the moment (0.5) and I really liked what you said about giving back your energy to the group (.) because (.) and what you said about (.) like (.) being able to tell someone who's acting is so:: true.
466 C7: Hmm::.
467 R: Like um: (.) I think (.) the higher the level of the performer, they can pick that out (.) of a conductor quite easily
468 C7: Hmm::.=
469 R: =like, if they're just (.) doing:: I mean they're so good that they can go through the motions and being expressive and they can (.) you know be (.) be confident, which is good to have on the podium, but also (.) there's this element of being fake, right?
470 C7: Hmm::.
471 R: I once watched a conductor and at (.) at the end of every slow piece he would close his eyes and be like (.) you get this kind of disconnect. I love this cut off, it's like where you turn your hand upside down and then you curl your fingers around and then let go of the sound [demonstrates the described gesture] like that, I love that cut off it's so, but you can't over use it, but I mean (.) he'd bring the ensemble down (.) then he would close his eyes (.) and then he'd perform that gesture [laughter] and it was very effective, but he did it at the end of almost every slo::w delicate piece on the concert.
472 C7: Yeah (.) it begins to lose its meaning.
473 R: =Yeah (.) and then you lose your connection with the ensemble by closing your eyes and you're closing the energy right? Like even if it's soft you should stay engaged with the group, but I know what he was doing, he was (.) into the music.
474 C7: Right. [Laughter]
475 R: Some things we do as conductors can look a little contrived, right? [Laughter]
476 C7: =Yeah (.) I do like it whe::n, whe::n (.) in the guitar ensemble when we finish pieces, I really like it (.) um:: (.) when the conductor looks at every single player (0.3) at the end of the piece, he just looks at everyone, like (.) even if he's not cutting it off, cuz you know how the guitars ring
477 R: Yea::h.
478 C7: and then we cut them off.
479 R: Right.
480 C7: So:::....
481 R: You have to have a moment of ring.
482 C7&R: Yeah.
483 C7: So it rings, and I like how he looks at every player (.) and then because I'm sitting towards the end (.) we always lock up and then he looks at me and then he's like (.) cut it.
484 R: Yeah.
485 C7: And I just love that, because he's just looking at us, right?=
486 R: =Yeah (.) he brought everybody in first
487 C7: Yea::h.
488 R: and then (.) cut it off.
489 C7: Yeah.
490 R: Mm: hmm.
491 C7: cuz then, because he's so quiet and not moving all but you, and because the audience is hopefully quiet at that time
492 R: Yeah, oh yeah.=
493 C7: =all, all that happens is you hear the last note that everyone played.
494 R: Mm: hmm.
495 C7: Just ringing in this
496 R: Mm: hmm.
497 C7: whole big hall and then just.
498 R: It keeps ringing, right?=
499 C7: =Yeah, it's just really nice and then we all just (.) just mute it.=
500 R: =Dampening?
501 C7: Yeah.
502 R: Yeah.
503 C7: and he's like, and he's always like (.) "if one of you doesn't dampen his guitar", he's like, "I'll swear to God
504 R: [Laughter]=
505 C7: =after the concert, me and you are gonna go to the back ally". [Laughter]
506 R: [Laughter] Oh yeah, totally, because it's so important because
507 C7: Yea::h.

508 R: at the cut off, even in an ending, a big um:: (.) wind band ending (.)
the cut off has to be:: so perfect otherwise, one trumpet sound will
keep ringing.

509 C7: Hmm.

510 R: If everyone cut off and the trumpet cut off late (.) the last thing you're going to hear is just a trumpet, right?

511 C7: Mm: hm.

512 R: So you want (0.5) this ring of the whole ensemble to sound like you would want to hear (.) all the guitars, not one guitar keeping
going, right?

513 C7: Mm: hmm.

514 R: Mm: hmm.

515 C7: So yeah, lots of pressure.

516 R: [Laughter] Oh yeah, yeah.

517 C7: Lots of pressure.

518 R: And uh:: well (.) in my own opinion, some (.) some people are better at giving in to pressure than others, right?

519 C7: Yeah.

520 R: Do you think about um:: (.) the sound, if the sound moment is kind of susta::ined and the notes are going up (.) with a little dot at the
end (.) how would you describe you're moving. (.) like if it went sort of like (.) ba da da, ba da da, ba da da (.) de:: [Laughter]

521 C7: Um::...

522 R: How would you (.) kind of move, do you think?

523 C7: Uh:: (.) this one is also a tough one...let's see (3.0) I don't know (.) I would, ma::y... I would probably (.) try to keep the beat (.) and
then at the end I would just give it a nice little

524 R: Little.

525 C7: dab.

526 R: A little dab or a little

527 C7: Well::.

528 R: I like what you said, opening the [demonstrates a gesture where two joined fingers open] hand kind of...=

529 C7: =Yeah, well I don't know... beat, beat, beat, and then just [Demonstrates gesture in tadem with the spoken text]

530 R: Yeah.

531 C7: and I like to use this hand. I don't know why (.) but (.) dip, dip, dab, and then psh

532 R: Yeah.

533 C7: cuz there's a lot of (.) you know, in the car when I drive, I do this a lot. [demonstrates right hand conducting pattern]

534 R: Yea:h?

535 C7: You know, it's not a really good thing.

536 R: No, well...[Laughter]

537 C7: Because then your car always goes to the right (0.3) anyways.

538 R: [C7 and R laughter] You need a wheel rotation.

539 C7: I know, I know.

540 R: No, just teasing, just teasing, now (.) and if you have a big um:: (.) cymbal crash
or, or (.) um:: (.) type of thing, what kind of thing would you do?

541 C7: If this is like a big, psh

542 R: Yeah.

543 C7: then I would definitely like (.) go for it.

544 R: Yeah, just get in there.=

545 C7: =Yeah, just like make it sure, because I'm like

546 R: [2.0 seconds of laughter]

547 C7: cuz (.) yeah (.) yeah (0.5) cuz all the energy is there (.) I think=

548 R: Yeah.

549 C7: I think that's why they're used.=

550 R: =Mm: hmm.

551 C7: It's just to give you that big=

552 R: =Rush. [Laughter]

553 C7: rush (.) yeah, and then just like wow.

554 R: Yeah.=

555 C7: =So you know, m::ight as well give it to them

556 R: Ri:ght.=

557 C7: =and, and you know (0.5) and like in the CPO they're always in the back

558 R: Mm: hmm.

559 C7: so you know, it's very easy to get distracted if you only
have one hit=

560 R: =I know.

561 C7: within like twenty-five minutes

562 R: I know, yeah.
563 C7: so might as, so might as well, you know (.) yeah.=
564 R: =Make it good, right? [Laughter]
565 C7: Might as well make it good, so like, you know, if-if I'm looking at the conductor and the conductor looks at me (.) and like, and the conductor says this [demonstrates a normal cue with little acceleration] I'll probably just miss it.
566 R: Mm: hm, mm: hm.
567 C7: So I don't know, might as well
568 R: Yeah.
569 C7: just, you know.
570 R: And I mean (0.5) you made a really good point about percussion (.) in which they often rest
571 C7: Hmm:.
572 R: and then have this big moment, after they have rested for like 50 bars, right?
573 C7: Yeah.
574 R: And then now they have a big crash (0.5) and that's also really important (.) I think (.) that the conductors get (.) get engaged with the back, you know (.) and be right there with them and give that hit, because then there is no question if they miss counted, they know they need to do it then, right?
575 C7: Hmm:.
576 R: And (.) mostly by the professional level, like CPO guys don't usually miscount (.) but (.) even professional players like the security of being with a conductor and giving it with him, right?
577 C7: Yeah, definitely (0.5) you know (.) um:: (.) the conductor will usually say, you know, "at forty-seven I'll look at you, or at forty-eight I'll look at you."
578 R: Yeah, Mm: hmm.
579 C7: And what we usually do is (.) if we have like 50 measure rest (.) then we would write down what happens (1.0) musically
580 R: Mm: hmm.
581 C7: the last musical act that's even before we go in (0.3) so if there is an entrance in:: that section (.) three before us
582 R: Mm: hmm.=
583 C7: =then instead of counting fifty bars
584 R: Yeah.
585 C7: okay forty-seven, forty-eight, forty-nine, fifty, right.
586 R: Yeah (.) you cue your brain to listen for that.
587 C7: Yeah, exactly.
588 R: And then you're ready for that.=
589 C7: =Yeah
590 R: Yeah.=
591 C7: because you don't want to miss an entrance.
592 R: [Laughter] No:: .
593 C7: Especially if you have so many sections an::d
594 R: Ri:ght.
595 C7: the conductor's like, I'm not going to give you a cue (.) so yeah.
596 R: Yeah, um:: (.) like you said, on the performance day, you like all of a sudden, don't
597 C7: Yeah.
598 R: when you did the whole rehearsal set, so::
599 C7: Yeah.=
600 R: =yeah, these things happen.
601 C7: Hmm:.
602 R: Um:: (.) and I want to talk through these accuracy tests.
603 C7: Mm: hm.
604 R: And it's good that you just took one, so it's fresh on your mind.
605 C7: Hmm:.
606 R: And I'm going talk about each part (.) that you did, and get your thoughts on it.
607 C7: Hmm:.
608 R: So (.) in Part One (.) you listened to three audios and watched a video or you watched one video and then listened to three audios and had to select the sound that best fit the gesture (0.5) which way did you prefer?
609 C7: Um:::
610 R: To listen to the three and then watch the one video, or to watch the one video (.) and then hear the three sounds?
611 C7: (2.0) Watch the video and then hear the three sounds.

612 R: Mm: hmm.
 613 C7: Yeah, I liked that better, cuz then the (0.3) when you watch the video it can create the sound in your head
 614 R: Hmm:.=
 615 C7: =and then when you hear it (.) you can compare it right away
 616 R: Oh:.
 617 C7: and it's easier to remember=
 618 R: =Mm: hmm.
 619 C7: but the three sounds and then the video (.) was really hard to remember
 620 R: Mm: hmm.
 621 C7: especially if you have (.) memory issues, but yeah.=
 622 R: =Oh yeah. No, I think what you said (.) is very valid.
 623 C7: Hmm:.
 624 R: And in Part Two, you had to watch three videos and listen to one sound (.) or listen to one sound and then watch three videos.=
 625 C7: =Again, I think it was the one sound and then the three videos.
 626 R: Mm: hmm.
 627 C7: That was a lot easier.
 628 R: For the same reasons?=
 629 C7: =Especially in Part Two, cuz the three videos (.) would really-really (.) require a lot of memory=
 630 R: =Uh huh.
 631 C7: to just be able, cuz with the sound it's easier to memorize then the, like three sounds are easier than three videos
 632 R: Uh huh.
 633 C7: to memorize.
 634 R: Uh huh.
 635 C7: And the three videos, cause sometimes (.) because the (.) the sound is (.) one hundred percent the sound
 636 R: Mm: hmm.=
 637 C7: =but the video could be vague (0.3) it could be
 638 R: Mm: hmm.
 639 C7: either that or that.
 640 R: Hmm:..
 641 C7: And if you already know the sounds (.) then you kind of just ask yourself, well what is it?
 642 R: Mm: hmm.
 643 C7: So:..
 644 R: Hmm:..
 645 C7: multiply that by three.
 646 R: And then.=
 647 C7: =it's just...
 648 R: Yeah.
 649 C7: =Yeah, but if you have a sound, it's one hundred percent the sound (.) and then one, two, three and you're done.
 650 R: Uh huh.
 651 C7: Decision making (0.5) it's like
 652 R: Yeah.
 653 C7: decision making.
 654 R: Uh huh (1.0) and I thi::nk about the gesture (.) what you said (.) cuz the (.) the (.) I think there's a lot of vagueness that's contained in movement
 655 C7: Hmm.
 656 R: but not in sound. I think sound is more descript.
 657 C7: Hmm.
 658 R: I like what you said about, it's one hundred percent the sound (.) you've got that in your mind
 659 C7: Hmm:..
 660 R: =and um:: (.) but movement can be vague (.) and I really, I think you just hit on a really key point (.) in my study. [Laughter]
 661 C7: Hmm:..
 662 R: Which is that (.) movements, this one movement could be appropriate for a nu::mber of sounds, but the sound is distinct, it's not (0.3) it doesn't
 663 C7: It's always the same.
 664 R: usually be manipulated, right?
 665 C7: Hmm:..
 666 R: Good. (1.0) In Part Three:: you watched um:: (.) three different ges:: (.) uh::: audio gesture combinations and had to select the one that made the most audio visual sense to you (0.5) an::d (.) describe to me:: (.) what you felt or thought about that process.
 667 C7: Hmm:: can you repeat that, sorry.
 668 R: Sure [laughter] um:: (.) in Part Three:: you had to kind of watch (.) three different
 669 C7: Mm: hmm.

670 R: um (.) sound gesture clips=
671 C7: =Hmm.
672 R: an::d I just kind of wondered what you thought about (.) having to do that (0.3) you had to sort of select the one that was the best fit.
673 C7: That was my favorite actually, because it was the easiest.
674 R: Yeah?
675 C7: Yeah, because you know, you would see one if it's, if it's really good, it's really good (0.5) and then you would see the other one's bad, you would see the third one's bad, so it confirms the second one, that's really good.
676 R: Yeah.
677 C7: I think it's more like a first impression (.) first impression first (.) pick (.) I guess.
678 R: Mm: hmm.
679 C7: So like whoever, like, whichever makes the (.) best impression then that's where you lean towards (1.0) even (.) even some of them (.) I sort of kne::w it was (.) probably wrong, but I just felt really good about it=
680 R: =Yeah.
681 C7: because I just felt that I matched that particular sound
682 R: Mm: hmm.
683 C7: and even though maybe on (.) on another day I would pick something else
684 R: Hmm:.
685 C7: but I just (.) went for that cuz I thought to myself, okay well this feels (.) about right because everything else (.) felt worse.
686 R: Mm: hmm.
687 C7: It's just like English, you have all of them, right?
688 R: Mm: hmm.
689 C7: And you just have to pick the one that is (.) the most right
690 R: Oh yeah.
691 C7: which for me was really confusing, but...=
692 R: =Yeah, I know what you mean. So it's like you have a number of versions that cou:ld work (.) but you have to fit the one that (.) has the best fit.
693 C7: Yeah (.) the one that you see and you go like, okay (.) but the thing that (.) also with the computer sometimes:: because you have three videos in the same slide
694 R: Mm: hmm.
695 C7: it creates a little bit of lag (.) so sometimes you're not sure if it's the sound not matching the video=
696 R: =Right. [Laughter]
697 C7: or the video is not matching the sound (.) and sometimes you start a little bit late and you just, you're just not sure of what it is.
698 R: Hmm:.
699 C7: So:: (.) like I said, it's just a matter of picking whichever one (.) that felt right (0.5) but some of them were really obvious.
700 R: Yeah.
701 C7: Some of them were really, really obvious, and some of them were really vague.
702 R: Yeah (.) oh good (0.3) yeah, I couldn't make it too easy on you, could I?
703 C7: Yeah.
704 R: [Laughter] Excellent (.) an::d um:: (.) do you think uh:: (.) now I scored your first exam, or the first that you did (.) an::d um:: (.) you did very well. I don't remember your like exact
705 C7: Oh really?
706 R: I:: I can send you what your actual scores were at the end of this study (.) but um:: (.) but (.) I remember you:: in the lab, in the motion capture lab (0.3) you had closed your eye::s and really got into every sound, and even when there were randomizers you were really connecting to the sounds.
707 C7: Hmm:.
708 R: And (.) then I remember you saying to me after you took the first one of these tests (.) that you were remembering those sounds that you had done before (.) and that you were making connections (.) um:: (.) from what you had done in the lab, and what the other people were do::ing and the sou::nds (.) and really (.) making those connections and I think (.) uh:: I've scored most of the first test, I haven't score the second test yet, but (.) um:: (.) yeah, you had such a high accuracy rating being able to match those up.
709 C7: Wow, I thought I was the opposite.
710 R: No:: and I've wondered if it was because
711 C7: I thought I was the worst.
712 R: you were just (.) mentally:: (.) or just connecting to the experience you had in the motion capture lab (.) and then you saw what the other conductors were doing
713 C7: Hmm:.
714 R: and were able to make a connection

715 C7: Hmm:.
 716 R: to them. I don't know, I don't know what (.) what it was.
 717 C7: Well the first time like, I did a little bit of acting (.) um:: (.) a few years ago (.) not, not in a professional way
 718 R: No-no.=
 719 C7: =and not school, but it was just volunteer acting and what we were doing is (.) is just a matter of putting yourself in the shoe of it
 720 R: Oh::.
 721 C7: but because the topics were so personal it was (.) it was always fun to just (.) put yourself in that shoe.
 722 R: Yeah.
 723 C7: Um:: and when I (.) when I (.) play (.) music, I always (.) the power of my plan is to put myself in a shoe
 724 R: Mm: hmm.
 725 C7: of a character
 that I always
 Mm: hm, mm hm.=
 726 R:
 727 C7: =try to create for every piece.
 728 R: You do this for each piece you learn?
 729 C7: Yeah (.) I try to at least
 730 R: Mm hmm.
 731 C7: most of the time.
 732 R: O:::kay.=
 733 C7: =So: I'm always (.) in that (.) mental (.) process.
 734 R: Yeah.
 735 C7: So when we were doing the conducting (.) if I was looking at you or everything else, there are so many distractions (.) you know, you could (.) you could move your head like that (.) you know you're
 736 R: Mm: hmm.
 737 C7: standing there and then you just look from left to right and I would be completely thrown off.
 738 R: Right.
 739 C7: And I, cuz I would be stuck in what (.) what (.) what did you think about me sort of thing.
 740 R: Right.
 741 C7: Right?=
 742 R: =Right.
 743 C7: Um:: (.) but if you close your eyes you're just, you're committed to:: (.) whatever space you created.
 744 R: Mm: hmm, mm: hm.
 745 C7: And then the sounds were kind of easy too:: (1.0) because they're so short and you are not (.) because there's no plan it's, it's more, it's easier to just improvise on them=
 746 R: =Yeah.
 747 C7: and (.) which means you just (.) be spontaneous with it.=
 748 R: =Yeah.
 749 C7: So that's really what I tried to do, but, having said that, the second time (.) after watching the videos I had an idea of what some other people do like
 750 R: Uh huh.
 751 C7: okay, if you're a conductor might as well keep the beat.
 752 R: Yeah.=
 753 C7: =Right? So I'm like okay well (.) next time let's do all the motions but let's try to focus on the beat first.
 754 R: Uh huh.
 755 C7: And then lock the beat and try to add something to it instead of just
 756 R: Uh huh (.) anything
 757 C7: whatever.
 758 R: Uh huh:::
 759 C7: Yeah, anything.
 760 R: right.
 761 C7: So I think, so that's, I think that's really what I learned from the other videos.
 762 R: Hm::.
 763 C7: Um:: (.) some of the clips were funny but
 764 R: [Laughter]
 765 C7: some of the clips were actually really, really (.) professional
 766 R: Mm hmm (0.3) mm hm.=
 767 C7: =an::d (.) I would sa::y (0.5) to the point
 768 R: Mm: hm.
 769 C7: verses I would think some of my motions were not to the point.
 770 R: Hm:: concise or clear (.) perhaps?=

771 C7: =Yeah, exactly.

772 R: Yeah, and clarity is something that (.) um:: (.) as you take a course in how to execute these things (.) you'll gain a lot of clarity because then you'll know how to manipulate it, you'll know what you can do to get that clarity, right?

773 C7: Exactly.

774 R: But I, but I actually really like (.) that you did this study before taking a conducting class because a lot of the conductors (.) had already had their basic classes, two classes (.) and (.) they, so they knew how to achieve the clarity (.) but they were not as free:: with their imagination to be expressive and just do the whatever part, you know how you said (.) the whatever part?

775 C7: Hmm::.

776 R: Um:: (.) which I think was key or an advantage that (0.5) clarity is something that can be taught quite easily and this (.) getting a pattern and getting in touch with the beat (.) you can get that pretty quickly in a class (0.5) um:: (.) but this teaching people to be expressive and think outside the box and to move freely (.) is difficult for people. I don't know why, probably because we teach the clarity first (.) and the:: imagination, free, expressive stuff second (0.5) and so, they're sort of caught in this sort of box that it should be this way

777 C7: Hmm::.

778 R: but I kind of like that you saw what the other conductors were doing to get ideas for your next session and

779 C7: Yeah.=

780 R: =to think about how you could change because then you're really growing, right?=
 781 C7: Yeah.

782 R: You get something out of this (.) right?

783 C7: You don't want to be the same person

784 R: No. [Laughter]

785 C7: and what was it, was it (.) about two weeks in-between the tests with our Learning Session in between or so?

786 R: Mm: hm.

787 C7: And might as well change in those two weeks.

788 R: Mm: hmm, mm:: hm.=

789 C7: =Don't want to be the same person.

790 R: Absolutely, so (.) um:: (0.3) I don't have too many more questions

791 C7: Mm: hmm.

792 R: but there's one (.) scenario that I want to (.) get your thoughts on (.) and::d um:: (.) one probably happens more than the other, but I see both of these and you might have seen this too.

793 C7: Hmm.

794 R: In concerts (.) um: there's this paradox where the gestural musical landscape of the conductor is so expressive::ve with affective qualities and he's showing the dynamics and showing shape and expression, but the ensemble is pretty bland (0.5) and then the opposite (.) where the ensemble is playing so beautifully:: and (.) expressive with shape and (.) time and intensity and amplitude changes yet (.) the conducting is bland and boring, and he's basically just showing a beat pattern.

795 C7: Hmm::.

796 R: So, what do you think (.) is (.) occurring there?

797 C7: Um:: (.) my personal opinion about that (.) is the relationship between both (.) um:: (.) and the relationship between the band ensemble themselves.

798 R: Hmm::.

799 C7: Um::: if you just (.) like, I don't believe (.) a lot of them (.) people here, they go to their classes because it's a requirement=
 800 R: Mm: hmm.

801 C7: and they really don't like the person sitting next to them:: (.) and they're not a team.=

802 R: =Yeah.

803 C7: I always tell them, like (.) everybody asks me, "hey, well why do you watch soccer?" I'm like (.) because there is like this Barcelonan team that I watch, it's:: such (.) a solid unit, like they party together::

804 R: Yeah.

805 C7: you know (.) they do everything together, they drive, they shop together

806 R: Yeah.

807 C7: and then when they walk onto the pitch, they practice together (0.3) when they go on the field it's not like (.) eleven people, it's just like=

808 R: =Yeah.

809 C7: one big team moving.

810 R: Uh huh.

811 C7: And that's why now (.) they're like, the best in the world for like

812 R: Yeah.

813 C7: the past five years and then (.) when I tell them, "when you go to the ensemble it's just like the same thing."

814 R: Uh huh.
 815 C7: Even though you don't see those people, but you're in class together, you do homework together
 816 R: Mm: hmm.
 817 C7: you go to Tim Horton's together.
 818 R: Mm: hm.=
 819 C7: =Might as well take that spirit (.) put it into the ensemble (.) and then create a strong team. It's not about who plays it right.
 820 R: Mm: hmm.
 821 C7: It's about everyone playing it right.
 822 R: Mm: hmm.
 823 C7: And then the conductor, the conductor can walk in (.) and create a personal relationship
 824 R: Mm: hmm.
 825 C7: with those people like (.) um:: (.) I know our guitar ensemble conductor, you know (.) we always go for drinks after
 826 R: Mm: hm.
 827 C7: and we always go for wings
 828 R: Yeah.
 829 C7: verses the University Chorus, it's a lot bigger
 830 R: Yeah.
 831 C7: it's really hard to create that (.) but (.) I know::w uh:: (.) our conductor, she tries to tell us stories, personal stories
 832 R: Mm: hm, mm: hm.
 833 C7: just to bring us (.) in.
 834 R: Yeah.
 835 C7: But then again (.) it's (.) it's like a commitment and it's really hard to do. (.) I know a lot of people in the course (.) they just walk in and then after two weeks they're like (.) "yeah, I really don't want to be here."
 836 R: Uh huh.
 837 C7: But they're just they're just too lazy to even (.) drop the course
 838 R: Yeah.
 839 C7: um:: (.) that's::
 840 R: Or they're not a part of the team.
 841 C7: Yeah, that's just laziness I think.
 842 R: Mm: hmm, mm: hm.
 843 C7: but if you're, you're in there for a reason, let's just say whatever your reason is=
 844 R: =Yeah.
 845 C7: if it's to improve yourself, or gain musical experience (.) or
 846 R: Mm: hm, or even obtain a credit. [Laughter]
 847 C7: Or even obtaining a credit you have to:: commit to that goal and then commit to the spirit of it, it's not
 848 R: Hmm::
 849 C7: you can't just quit on it.
 850 R: Mm: hm.
 851 C7: And I think if you have that commitment (.) uh: (.) it's just like I said, music is like acting
 852 R: Mm: hm.
 853 C7: and I think music is better, but anyways.=
 854 R: =Yeah. [Laughter]
 855 C7: Music is like acting, you have to always commit to it.
 856 R: Hmm::
 857 C7: You can't (.) say okay, I'm going to take the role over here or then
 858 R: Yea::h.
 859 C7: two months later you're like (.) you know, I don't want to do this thing anymore.
 860 R: Yeah.=
 861 C7: =It doesn't work that way.
 862 R: Uh huh.
 863 C7: If you:: think to yourself you want to be an actor, then you have to understand that you:: (.) on the spot, for the rest of your life, you have to always be able to drop everything (.) and become an actor.
 864 R: Mm: hm.
 865 C7: Right?
 866 R: Mm: hmm.
 867 C7: And if you are in the music ensemble you have to understand at any time (.) of the day you have to drop everything.
 868 R: Mm: hmm.

869 C7: And if this piece is in a key you don't like (.) you just have to pretend that (.) while not pretend, you have to give yourself (.) the ability (.) to (.) open up

870 R: Mm: hm.

871 C7: to that (.) ne::w key signature, right?

872 R: Mm: hmm.

873 C7: So that (.) when that part comes, even if you hate it, but you enjoy it in that moment.

874 R: Mm: hmm.

875 C7: And (.) that's actually one of the hardest things to do

876 R: Mm: hmm.

877 C7: I think.

878 R: Mm: hm.

879 C7: Bu::t um:: (0.3) from my experience that's what happens in the ensemble.

880 R: Hmm::.

881 C7: I know once we had a concert and everybody was locked in except for that one person.=

882 R: =Yeah.

883 C7: Well two people were off

884 R: Right.=

885 C7: =uh:: but that's not because they weren't trying, it's just that (.) well (.) one of them wasn't really trying, but anyways.

886 R: Yeah (.) well that's good to be honest.

887 C7: Um::: there was, their technical skill and their commitment was kind of off=

888 R: =Yeah.

889 C7: not intentionally, it's just they didn't really know

890 R: Mm: hmm.

891 C7: the etiquette of being in a ba::nd.

892 R: Mm: hm:: (0.5) m::: hmm.

893 C7: Like, you know (.) that stuff that you learn from being in a band?

894 R: =Yeah from... yeah, that's right.

895 C7: Yea::h (0.5) exactly.=

896 R: =Yeah.

897 C7: They just didn't have that, so::...

898 R: Hmm::.

899 C7: when we went to the concert they were really not locking in=

900 R: =Yeah.

901 C7: an:::d (.) I just kept thinking about it cuz (.) you know I'm interested about these things.

902 R: Yeah (.) no, that's good.

903 C7: So:: I:: (.) just (.) I just think it's a matter of commitment really.

904 R: Yeah.=

905 C7: =It's just teamwork.

906 R: Yeah.

907 C7: Yeah, if there's no teamwork then (.) it's just a concert

908 R: Mm: hmm.

909 C7: for just another programme

910 R: Mm: hmm::.

911 C7: just another thing.

912 R: Mm: hm.=

913 C7: =Maybe after forty years it will become like that.

914 R: Yeah?

915 C7: For now (.) for me it's not, so::...

916 R: No, well that's good.

917 C7: Yeah.=

918 R: =I'm glad it's not, and I think it's really important (.) to recognize (.) um:: (.) like when um:: (.) my colleague and I, put together the operetta (0.5) I rehearsed the pit separate

919 C7: Hmm.

920 R: and then she rehearses the vocals and the leads separate, and then there comes a time where we have to put it all together and become the team, right?=
 921 C7: =Mm: hm.

922 R: And at first there's always a little bit of like, finding each other's vision

923 C7: Mm: hmm.

924 R: because it's sort of my pit vision, her vocal visions and now we have to find a team vision (0.5) and um: (.) that's hard.

925 C7: Both of you have the same rit. (.) both of you have the same dynamics.

926 R: Right, like we have to find the common ground, and I have to really (.) then I become sort of an accompaniment role to the vocals, an::d m::ost times or many times the pit will adjust to meet the vocal vision

927 C7: Hmm:.

928 R: because well (.) they're the solo, they're-they're being featured and we need to complement them, right?=
 929 C7: =Hmm:.

930 R: And um:: (.) that's sometimes ha::rd for the pit musicians because they have my vision an::d the::y, we really have a passion for our vision (0.5) we really like it, but then we get with the vocals and we realize, uh oh (.) they're taking this faster or they're going way slower or their rallentando is w::ay slower then we envisioned this rall.

931 C7: Hmm.

932 R: An::d um:: (.) so (.) so yeah it's finding what you said that (.) teamwor::k. That this is a team and we adjust to one another and (.) we find each other::, and we have a common ground, and now it has to come together. And (.) I liked what you said about (.) um:: (.) having sort of like it, it (.) it does happen where almost everybody is on the vision and one or two can be off (0.5) and the::n the conductor (.) I think it's his job to really try to get (.) that (.) those two that are off, to get them back in (.) to the, whatever it is, like.

933 C7: Or even make sure, like send them an email just to help them to wait.

934 R: Yeah. [Laughter]

935 C7: "Do you want an extra (.) session with me on your own?" or something like that. Yeah, exactly.

936 R: Yeah, get some extra coaching:: and, and stuff.=

937 C7: =Um (.) but like I said, I always watch DVDs, I always watch concerts and

938 R: Mm: hmm.=

939 C7: =um:: the number one thing I like about bands or you know, performances is that when you have (.) a performance that is so good (.) but the thing that makes it so good is not the technicality

940 R: Yeah.

941 C7: or the: (.) or you have the, all the notes right (0.5) it's thei:: (.) it's their ability to be in the moment.

942 R: Mm: hmm.

943 C7: An::d (.) it's just like (.) the performance is not about, I think the performance, the last thing about the performance really is the music, well

944 R: Mm: hmm.

945 C7: not the last thing=

946 R: =Yeah.

947 C7: uh:: but I think the first thing about the performance is:: (.) who's (.) like what you're feeling in the performance and character.

948 R: Yeah.

949 C7: So if you have (.) if you can lock into that team spirit (.) you're awesome. If you can't, then you're just playing notes

950 R: Mm: hmm.

951 C7: so it sucks.

952 R: No::: I like this

953 C7: Yeah.

954 R: this is great (0.5) and um:: (.) do you feel that coming into the motion capture lab and participating in the study has changed the way you think about your movements (.) and the way you listened (.) listened to these sound moments?

955 C7: Well definitely (0.3) it's not, it's not every day that you get to be spontaneous almost in the sounds

956 R: Mm: hm.=

957 C7: =other times you're just like us, we're just stuck in the thing, just practicing the technicality though, right?

958 R: Yeah (0.5) right.

959 C7: But then if you can just stop and actually listen, and then just try to move to the sound

960 R: Mm: hmm.

961 C7: that's not, you know (.) that's not something you would do

962 R: Mm: hmm.

963 C7: everyday, or voluntarily=

964 R: =Mm: hmm.

965 C7: you know (.) people like to do their assignments instead.

966 R: Yeah. [Laughter]

967 C7: But..

968 R: No, good point.

969 C7: but listening, but listening to the sound (.) like if I'm in my room (0.3) you know I have this sound, but I never thought about stopping and just moving to the sound=

970 R: =Yeah.

971 C7: and this was a chance to drop all the assignments and drop everything

972 R: Uh huh.

973 C7: and then just be in this phase where nobody is really judging, right?

974 R: Yeah.

975 C7: Just to be in this space, where okay (.) it's a free for all, just go and do whatever gesture you want

976 R: Yeah.

977 C7: cuz then you get to really evaluate yourself.=

978 R: =Uh huh.

979 C7: This was the first time (.) that I got to evaluate myself after coming to do this Music degree.

980 R: Mm: hm.

981 C7: Whereas do I really understand what the beat is? Do I really

982 R: Yeah.

983 C7: understand about dynamics?

984 R: Uh huh.

985 C7: Do I really understand what a march is? Do I really

986 R: Yeah.

987 C7: understand what all the instruments are playing?

988 R: Uh huh.

989 C7: Um:: I never really thought about those things, but the sounds gave me the chance to do that.=

990 R: =Yeah.

991 C7: Right, so::...

992 R: Oh good, well I'm glad. [Laughter] Um:: (.) so:: uh:: you would say then: that (.) this connection between::n the musical expression found in the score and the movements that you choose to convey (.) there's uh::, there is uh:: (.) more of a (0.3) content and-and (.) it's more of a connection now.

993 C7: Hmm.

994 R: Good, and do you consider (.) um:: (.) this to be a lasting benefit like some day:: perhaps you will conduct your own guitar ensemble, or your own band or your own orchestra or perhaps maybe, well you never know (.) or your own choir, or your own chamber group. Do you feel like um:: (.) that will help you to be able to do that?

995 C7: Mm hm.=

996 R: =Eventually.

997 C7: I already did with a fellow student.

998 R: Yeah:: (.) oh yeah?

999 C7: Uh:: because, well I wasn't conducting her

1000 R: No, no.

1001 C7: but she and I (.) we were both trying to find some movements

1002 R: Yeah.

1003 C7: to:: lock into those really difficult spaces so::...

1004 R: Yeah.

1005 C7: No, I definitely think (.) that this is (.) this is not something that would just you know (.) [snaps fingers] vanish right away.=

1006 R: =Mm: hmm.

1007 C7: This is something that you keep (.) improving, right?

1008 R: Good (.) excellent, and do you think too um:: (.) now I'm not offering this:: as a course that I know of yet

1009 C7: Hmm::

1010 R: but, eventually:: if there were other undergraduates students like yourself, and a similar program was offered let's say like uh:: (.) as a course, like not a full year course

1011 C7: So a program as in?

1012 R: but let's say like a half year course where you

1013 C7: Hmm::=

1014 R: =take your two conducting classes and then you get to do a class like this, where you use the motion capture, and you use um::.

1015 C7: Oh okay.

1016 R: and you use um, little excerpts and you get some coaching a::nd a::nd um: (.) where you talk through movement and things. Do you think that would be advantageous for students (.) or would you encourage them to take part in it?

1017 C7: I would say yes, but I would say also (.) what we should do, like (.) if we can add to it (.) this part of the interview as well.

1018 R: Mm: hm.

1019 C7: Um:: I don't mean this interview, cuz like

1020 R: Mm: hmm.

1021 C7: if you can add to it, it's like (.) sort of conducting, but from (0.5) uh:: what do you call this, theoretical, philosophical?

1022 R: Yeah, yep.

1023 C7: You know what I mean?

1024 R: Yeah.

1025 C7: Just like, okay well, it's just (.) okay, you conductors, you guys have the technique, let's just assume they do.

1026 R: Yeah.

1027 C7: You guys have the techniques (1.0) I would really be interested in sitting (.) and then just trying to get people to think about (.) what (.) what music is besides notes

1028 R: Mm: hmm.

1029 C7: because that's what has really bothered me about everything that is going on, like

1030 R: Mm: hmm.

1031 C7: cuz (.) I didn't really have any professional training, it was just me and then

1032 R: Yeah.

1033 C7: I got into the university (0.3) so the university was actually my first encounter with (.) other musicians.

1034 R: Uh huh.

1035 C7: So when I see people there's s::o many of them that (.) when you talk to them, it's all

1036 R: Mm: hmm.

1037 C7: good, can you keep the beat?

1038 R: Mm: hm.

1039 C7: Can you play all the notes?

1040 R: Mm: hmm, mm: hmm.

1041 C7: an::d, when you see them in recital hour, it's just like (.) okay this is (.) really boring.

1042 R: Hmm::=

1043 C7: =So I would really like for everyone to just sit down and just think about (.) okay well what can we do? Is this really teamwork?

1044 R: Mm: hm.

1045 C7: Just focus on developing those

1046 R: Yeah.

1047 C7: few other things besides the technicality right?=
1048 R: =Yeah, yeah.

1049 C7: And um:: let's call it (.) imagine at conducting.

1050 R: Yeah (.) imagining at conducting. [Laughter]

1051 C7: Imagine at conducting, imagine at conducting.

1052 R: No:: I'm glad you said that (.) because I think that's really important.

1053 C7: Yeah that's what it mainly involves, right?

1054 R: And um:: (.) now that you've had to observe these gestures on the accuracy tests, do you consider yourself a better observer of let's say, your guitar ensemble conductor when he conducts the ensemble and does one of those?

1055 C7: Mm: hmm::.

1056 R: Good (.) and um (.) do you believe that um:: (.) that this (.) idea of communicating phrasing and shapes and contours that you discussed, um:: (.) do you consider yourself mo:re capable to, to try those?

1057 C7: You mean the four:: (.) different?=
1058 R: =The little um: (.) getting out of the pattern and, and not worrying about the beat and just doing

1059 C7: Sure.=

1060 R: =a movement that fits

1061 C7: Sure.

1062 R: with the contour?=
1063 C7: =It's all about that I think (0.5) yeah (.) it's (.) yeah, it's not about (.) I mean the patterns are nice, but it's all about what you can do with the patterns.=

1064 R: =Mm: hm.

1065 C7: If you can push them a little bit more then.

1066 R: Mm: hm.

1067 C7: I think I would always go for that.

1068 R: Yeah.

1069 C7: I wouldn't be, I'm not a safe person.

1070 R: No.

1071 C7: No.

1072 R: But that's good though because I think too many conductors are just (.) playing it safe and they don't really put any of that in. Now choral conducting is a little bit different (.) than instrumental conducting in that, for whatever reason I don't know why, I tend to see more expression (.) with the hands and wrists and, and the movement reflecting the contour (.) more so in the choral conducting (.) then I do in the instrumental conducting with just baton

1073 C7: Mm: hm.

1074 R: and my hand.

1075 C7: Maybe it's because of the vision cuz the choral is (.) well (.) me I just like to connect

1076 R: Mm: hm.

1077 C7: but everybody else is sort of trying to:: (.) look at the conductor, and the conductor is looking at you:: (.) with the eye connection.

1078 R: Mm: hm::.

1079 C7: Versus instrumental, if you're not comfortable with the instrument, I mean (.) the guitar you really have to sometimes look if you're doing big shifts.=

1080 R: =Right, yeah.

1081 C7: I don't know much about other instruments.

1082 R: Yeah.

1083 C7: But (.) for example, if you have an instrument where you know, you have all your figures and you know what's going on, you don't need to look at the score.

1084 R: Mm: hm.

1085 C7: then (.) you can create that eye connection, but with the instrumental everybody's just (.) trying to keep up

1086 R: Mm: hmm.

1087 C7: and counting on their own.

1088 R: Mm: hmm.

1089 C7: And you know, they wish they're counting with the conductor and then there's a rit., they look up to make sure they're thinking the same thing.

1090 R: Right. [Laughter]

1091 C7: Right?

1092 R: Right.

1093 C7: Uh:: but I think with the vocals, it's a lot (.) easier, well the vocal music I'm not going to say it's easier but technically

1094 R: Mm: hmm.=

1095 C7: =it's a lot (.) it's a lot less demanding.

1096 R: Right.=

1097 C7: =Like just from my experience from

1098 R: Right.

1099 C7: the Chorus and the Guitar Ensemble.

1100 R: Yeah.

1101 C7: It's less demanding (.) on you as a:: professional musician=

1102 R: =Right.

1103 C7: than it is for Instrumental

1104 R: Mm: hm.

1105 C7: Music.

1106 R: So you can look up cuz it's not as technically demanding

1107 C7: You can look up (.) yeah, and then, and then there's always the breathing, and there's always the (.) okay I'm going to breathe, I'm going to look, and there's always people covering for you

1108 R: Mm: hmm.

1109 C7: if you have that one long note where you can look.

1110 R: Right.

1111 C7: Uh:: (.) it's the:: (.) there's always, you know, sweet moments, so I think that's why

1112 R: Hmm::.

1113 C7: for the choral.

1114 R: Mm: hmm.

1115 C7: conducting.

1116 R: Good (.) well yeah, well thank you for doing this study.

1117 C7: Oh no problem.

1118 R: No, I appreciate your energy and your

1119 C7: I was surprised

1120 R: valuable insights.

1121 C7: I was surprised you said I had the highest score, I'm like wow.

- 1122 R: Well I think it was because well, when you said you were taking out all other distractions and you were in the moment (.) and you were connecting in your mind to this (0.5) and then you saw them reflected (.) in the gesture (.) and the::n, and then (.) made a connection with how they were doing it and were able to discern them. I think that was really neat and um: (.) obviously I think about a lot of our discussion has been about contour and what music really is.
- 1123 C7: Hmm.
- 1124 R: You know (0.3) mu:sic is what happens between the notes, right?
- 1125 C7: Yeah.
- 1126 R: Um:: (.) but I think it's great cuz our discussion I think because of your (.) kind of (.) um:: (.) like philosophic background and understanding that, that you were able to find a lot of success quite easily in my study because you were making a connection to that (0.5) and you were open, right?
- 1127 C7: Right.
- 1128 R: It also depends on your teacher's outlook on how they would train you (1.0) you would be:: you would come out a very different conductor than a conductor who studied with someone else, because (.) um: it's sort of like uh:: (.) this interpretation of music where let's say your guitar teacher knows a classical piece that he's teaching you, like a Rodrigo concerto or something
- 1129 C7: Hmm.
- 1130 R: and then (.) you (.) learn it (0.5) and then there's an interpretation right? He can help you perfect the techniques (.) and then he can give suggestions on how he may interpret it, but then (.) in the end (.) it's your interpretation.
- 1131 C7: Hmm.
- 1132 R: And so (.) the same thing with conducting, conductors can teach you how to do the actions and the movements and how to execute them, but in the end (.) you:: have to make a connection to this contour, and you:: have to become expressive (.) um:: (.) and, and you have to make your own interpretation.
- 1133 C7: You can't just copy and paste whatever they're doing.=
- 1134 R: =No:: and I always use this idea of (.) I'll leave you with one final thought (1.0) um:: (.) um: (.) there's a lady, she was a composition teacher named Nadia Boulanger, and she:: (0.3) um:: (.) she (.) was really instrumental in a lot of Early American composers of the twentieth century, like Aaron Copland let's say, and other (.) sort of (.) Hindemith, Paul Hindemith (0.5) so these very famous sort of composers (.) and what her style was like, she made them compose, let's say a string quartet, and she made them compose a theme and variation, and then she would make them compose, like she'd give them the format, but she would give them a lot of free::dom to do:: (.) their ow::n piece.
- 1135 C7: Hmm.
- 1136 R: And all:: of the sort of composers that studied with her, their music is very different, it's all American Music
- 1137 C7: Mm: hm.
- 1138 R: from that era, but they all turned out very different.
- 1139 C7: Because they had the freedom.
- 1140 R: They had the freedom.=
- 1141 C7: =The structure is the same almost?
- 1142 R: Yeah, the structure:: and the technique that she would teach them, but she gave them the freedom to be (.) expressive and try new things (.) and she would coach them and teach them, don't do that (.) that's wrong, parallel fifths or whatever, right?
- 1143 C7: Mm: hm.
- 1144 R: But (.) but she also gave them this idea (1.0) and um:: (.) that's really important in a teacher for me, like whether it's a performance (.) teacher or whether it's a conducting teacher (0.5) is that they teach you the techniques (.) and they help take out your bad habits (.) but then they also give you the freedom to try new things.
- 1145 C7: Hmm.
- 1146 R: Yeah (1.0) so, and one of my things was [laughter] I got caught with was, I would try too many new things in one go around because I'm like you, I like to be on the edge a little
- 1147 C7: Hmm.
- 1148 R: and I like to push the envelope with my ideas=
- 1149 C7: =Hmm.
- 1150 R: and so (.) my guy (.) he just reined me in a little bit and would say, "well, those are really good, but don't throw them all in at once (.) you know (.) you just want to work those in (.) at key moments, and learn the moments that you can use those."=
- 1151 C7: =And definitely, eventually not over use.
- 1152 R: Right.
- 1153 C7: Some of the things that you really like, I think it's very easy to do (.) if you find something you really enjoy=
- 1154 R: =Yeah.
- 1155 C7: and you're doing it all the time.=
- 1156 R: =Yeah. [Laughter]
- 1157 C7: And it's like no, you have to save it.
- 1158 R: That's right.
- 1159 C7: Yeah.

1160 R: And then we would call that in conducting, over-conducting, which is like (.) then it becomes a little bit like acting, it's overkill.

1161 C7: Hmm.

1162 R: It's like yeah (.) you're able to do it all, but you shouldn't always do it all because (.) there should be some element to minimalism and then that moment (.) when you really want to use it (.) then put it in.

1163 C7: Simplicity (0.5) it's about the music and you're just guiding the music.

1164 R: Yeah.=

1165 C7: =You don't want people to be looking at you, you want people to be listening.

1166 R: Yes.

1167 C7: Yeah.

1168 R: Yes, and hopefully your movement will reflect the sound

1169 C7: Hmm.

1170 R: which often does not in a lot of (.) um: (.) people, but I think that's also because they're not making a connection to these contours.

1171 C7: Yeah. I find that a lot in concerts, that's why I stopped going, but...

1172 R: Yeah (.) well they don't make the connection to the contours and perhaps (.) the other side of the coin is:: they don't have the technical training or no one ever took them past the sort of, this is the beat (.) this is the pattern and (.) you can do more, right? So (.) so that's always tricky too (.) but yeah, thank you for your interview (.) yay. [Laughter]

1173 C7: No problem (0.5) thanks for the whole (.) it's okay, you can come later thing (.) I was kind of stressed about it.

1174 R: Oh:: no problem. [Turns off the recording devices]

Conductor Eight

- 1 R: [Starts the recording devices] Okay, so the purpose of the today is to just discuss (.) the sessions and your impressions on some of the things that (.) you had to do over the course of the study.
- 2 C8: Kay.
- 3 R: So please state your name in full.
- 4 C8: _____ or _____ I guess.
- 5 R: Good, and how old are you now?
- 6 C8: Uh, twenty-two.
- 7 R: And you're currently enrolled as an undergraduate student at the University of Calgary?
- 8 C8: Yes, correct.
- 9 R: And you're field of study here is?
- 10 C8: Um::, Music Education.
- 11 R: Okay, and what year of your program are you in?
- 12 C8: Third year.
- 13 R: Good, and have you taken two or fewer (.) courses in conducting?
- 14 C8: Uh, yeah, two, I took two last year.
- 15 R: Good, and are you studying or have you had any private conducting lessons?
- 16 C8: No.
- 17 R: And (.) in the, uh (.) over the course of your degree, in your MUED (.) ya know (.) programming, when you graduate (.) it will be a Bachelor of Music?
- 18 C8: Yeah, I think it's here, it's called Integrated, Bachelor of Music integrated with Music Education, I think or...=
- 19 R: =Okay.
- 20 C8: something, I'm not, I'm not sure how it works, but yeah, it will a BMus=
- 21 R: =Mm hmm.
- 22 C8: or something, yeah.
- 23 R: And your two areas of focus are (.) um: (.) Music Education and something else?
- 24 C8: It might be an integration of like, cuz I took (.) instead of taking, or doing like a uh (.) a final project, I did two more classes. I did uh (.) two histories and two theories. Normally, you only have to do one of each.=
- 25 R: =O::h okay.
- 26 C8: So instead of doing like the recital or the paper
- 27 R: Mm hmm.
- 28 C8: I just did that.
- 29 R: Oh okay.
- 30 C8: Yeah.
- 31 R: Excellent (.) that's good to know, there is a lot more flexibility in these degrees than there used to be.
- 32 C8: Mm hmm.
- 33 R: and they are more integrated into the subject areas, rather than just (.) Music History, or Music Performance or Music Ed. so that's
- 34 C8: Yeah.=
- 35 R: =so that's actually really nice (.) good. So (.) um: (.) have you ever conducted any of the four of the march excerpts before this study?
- 36 C8: No, I have not.
- 37 R: Had you ever performed as an ensemble member on any of the four marches?
- 38 C8: No.
- 39 R: Excellent (.) well I like asking that (.) because it's good to sort of know (.) if a person really had a background in the piece, and they knew it inside and out, then I'm not really testing (.) the (0.5) they are just almost too familiar with the excerpt, so I'm really glad that=
- 40 C8: =Yeah.
- 41 R: you didn't have...=
- 42 C8: =I didn't know any of it at all.
- 43 R: Oh good.
- 44 C8: Yeah.
- 45 R: And uh (.) which of these, uh (.) I guess you would say (.) uh (.) what factors influenced your decision to take part in this study?
- 46 C8: Uh (.) you get like (.) more coaching on um: (.) conducting, cuz I know that I have pretty (.) just (0.5) like (.) the standard conducting pattern, I just didn't know what to do with my left hand all the time, so it's nice to get to work on that. That was the main reason that drew me to do it more, I thought to myself, yeah I could use more tips on conducting.
- 47 R: Yeah, well thanks, I'm really glad that you did (.) and fortunately you made time, because I know (.) that you're a busy student, as many undergrads are
- 48 C8: Mm hmm.
- 49 R: and uh, I do appreciate you (.) feeling like you could get something out of doing all of this. [Laughs]
- 50 C8: Yeah.
- 51 R: And hopefully you got some tools on what you can
- 52 C8: Yeah.

53 R: work on in the future. (.) Um: (.) so with these four little emblems, in my study we call them a press emblem, a glide type of emblem, a dab emblem and a punch emblem

54 C8: Mm hmm.=

55 R: =which of those four was the easiest for you to sort of incorporate into (.) your conducting?

56 C8: The punch I'd say, that's probably the easiest one, because there was that one note ba da da, ba da da, ba da da, boom. =

57 R: =Yeah.

58 C8: It's easy (.) it's just an easier one. If it was an off-beat maybe, it would be kind of hard, but

59 R: Mm hmm.=

60 C8: =that one extra one, I can't remember which one that is, but that one is good. The punch, is probably the easiest, are you going to ask me what is the hardest one (.) now?

61 R: Yeah.

62 C8: Okay.

63 R: [Laughs]

64 C8: The hardest one was probably, is it the glide? The pet and the cat analogy.

65 R: Oh yeah yeah the press. [Laughs]

66 C8: Yeah that one was hard, cuz you're trying to, I dunno, just (.) yeah...

67 R: Yeah kind of incorporate that sort of long sustained movement

68 C8: Yeah.

69 R: on top with a pattern going in the other hand is very difficult to execute at first.

70 C8: Mm hmm exactly.

71 R: Mm hmm excellent (.) well I guess you answered why it was difficult, because I was going to say why and you did.=

72 C8: =Yeah.

73 R: So that's good (.) and so (.) do you think that um: (2.0) uh (1.0) well I guess in my field, we talk about this notion of tracing a sound...

74 C8: Okay.

75 R: So do you feel that these emblematic gestures are done or performed with the intention of drawing or tracing the soundscape?

76 C8: Yes I do, um: (.) it definitely shows it to like (.) the cond...audience and even the ensemble I think that you can (.) you can sort of see, it's sort of yeah, I guess it's a way of like outlining what's going on, as you said, it's like a soundscape (.) I think it does work, especially in like, the gliding or the punch, stuff like that, those are (.) pretty effective, I think.

77 R: Mm hmm, and then, why (.) this is something I really toil with, why are some gestures or movements good (.) and appropriate for a wide number of sounds?

78 C8: Uh yeah, okay well, that's probably because maybe there are so many different types of styles that sort of (.) that are not completely different, that they have a lot in common maybe, so like (.) with that glide thing, you could do like a legato thing, but you could also do maybe, um: (.) even sort of like (.) phrasing almost with your glides, like a phrase, like a small phrase or something like that so...

79 R: Mm..

80 C8: Is that a good enough answer?

81 R: Yeah no.=

82 C8: =Okay.

83 R: That's great (.) I just wanted to get your (.) what your thoughts are about (.) why do some movements work for a whole bunch of stuff?

84 C8: Yeah, I think maybe because of the similarities, and in uh (.) in sounds that you can get (.) and maybe it won't work like, when you're doing that, maybe it will, I don't know.=

85 R: =Mm hmm (.) I guess an important thing that you mentioned is what would work, and trying to figure that out

86 C8: Yeah.

87 R: and...

88 C8: and you do that more in your score study you're probably, and like when you're planning it out

89 R: Mm hmm.

90 C8: so...

91 R: Yeah, and then in the moment, if you do something in the moment, and you don't feel like it gets the reaction, then you have to decide was it because they weren't watching, or if (.) what I did, didn't make sense.

92 C8: Exactly.

93 R: Mm hmm (.) good, what are some properties or elements of sound that change frequently and require an action or movement to help encourage them?

94 C8: Um:: (.) maybe like uh (.) different articulations and stuff like that, different uh (.) we just talked about this, styles (.) and like your pattern too (.) if the music is either softer or louder, your pattern needs to change, even with uh (.) pointed articulations (.) or accents, or even just legato, everything effects the pattern and your gestures, so...

95 R: Yeah, yeah.=

96 C8: =you need to adapt all the time. You can't really even keep the same for even (.) one or two measures, that's what Dr. Price always says.

97 R: No, it's true.

98 C8: You can't really stay the same (.) even for all that long, even though I've seen it happen before and it's okay, but=
99 R: =Mm hmm (.) well good.
100 C8: it's something to think about, though I think.=
101 R: =Yeah, cuz the music is always changing its articulation style from measure to measure, and like you said, the dynamics are always changing
102 C8: Yeah.
103 R: that there may be like (.) a drastic change that happens within a bar, like a subito forte, right?
104 C8: Yeah.
105 R: Or it could be that there is a gradual change in dynamics, but something in our gestures has to reflect these changes.
106 C8: Yeah, and there is always something going on too (.) that needs to be brought out, because there is always like three parts, like bass harmony and melody.
107 R: Mm hmm.
108 C8: and then counter melody too, and stuff like that (.) and so you have to be aware of all of those things=
109 R: =Mm hmm.
110 C8: and be able to take into account those people that have been ignored a lot of the times playing the tuba. [Chuckles]
111 R: Probably ignored more than the flute players, right?
112 C8: Yeah, exactly the
113 R: [Laughs]
114 C8: flutes are right there.
115 R: [Laughs]
116 C8: So...
117 R: Yeah, good point, because as a conductor, you have to be able to manage all of those lines, and then decide who you are going to communicate with at any one given moment.
118 C8: And uh, as a player, I love it like when you get that connection, when they can, when they notice what you're doing and maybe if they cue you and you know, they just, I don't know, five parts to give you a cue, like the preparation, and then like (.) the smile after, like the acceptance of a good cue, or a good entrance and stuff like that.=
119 R: =Mm hmm.
120 C8: I appreciate that, as a player, especially being looked at, in those big moments too
121 R: Mm hmm.
122 C8: sort of connection thing.
123 R: I think a big connection thing
124 C8: Mm hmm.
125 R: and it's important that you do make those connections with every entrance of these little solo lines
126 C8: Mm hmm.=
127 R: =and then to me it gets interesting when you have multiple entrances in a very, over a short period of time, then you kind of have to choose who you are going to make contact with (.) and who might need you more
128 C8: Yeah.
129 R: and who will, you know (.) will just come in and they won't need it, so you don't look like an air traffic controller.
130 C8: Mm hmm.
131 R: But yeah, I think, because being there with someone on their entrance, even the seasoned professionals really like that security
132 C8: Yeah, oh yeah.
133 R: and it's just a confidence, and it builds a (.) I think, appreciation and respect
134 C8: Mm hmm.
135 R: both ways, so...
136 C8: Yeah, totally.
137 R: Mm hmm (.) good. Do you think of your emblematic gestures that we worked on in this study (.) um: that they are strongly linked or hardwired to particular sound moments, so for example if you had that ba da da, ba da da, ba da da, boom [laughs]
138 C8: Yeah.
139 R: in another piece, a very sort of (.) maybe similar, maybe the ba da deets were different, but the boom at the end was the same
140 C8: Yeah.
141 R: do you think that you're hardwired (.) or most likely to use a similar punch gesture there?
142 C8: I think so, yeah yeah, cuz once you learn something, I think you might want to use it in different ways, so I think I would probably use it, yeah totally
143 R: Mm:.
144 C8: I would probably use all four of them, for different things.
145 R: Mm hmm.

146 C8: And I think, because especially for the young band, you could teach them, like you gotta sensitize them, Dr. Brown always talks about that (.) you need to not desensitize your students, you need to sensitize them to your conducting, because then (.) if they want to keep going, they get used to that, cuz eventually when you get to the professional world, you don't even get patterns anymore.

147 R: Yeah.

148 C8: Whatever you do

149 R: Fluff.

150 C8: you better know your beats.

151 R: Yeah, fluff stuff.

152 C8: [Laughs] Yeah fluff.

153 R: Right, you get the expression?

154 C8: Yeah, that's a good one.

155 R: [Laughs]

156 C8: Yeah.

157 R: That's true, because the higher you go, hopefully the conductor would have more artistic expression in his gesture.=

158 C8: =Yeah.

159 R: And then, cuz the musicians don't um: (.) need the pulse so much anymore, right?

160 C8: Exactly.=

161 R: =Yeah, so I really think that too. I'm a really big believer that, especially with young students, you need to teach them the meaning linked to your gesture (.) so when I give

162 C8: Yeah.

163 R: this I want the sound to be like that.

164 C8: Exactly.

165 R: Mm hmm.

166 C8: You have to explain it, you can't just expect it either, you have to explain it.

167 R: Mm hmm.

168 C8: For sure (.) yeah.=

169 R: =Yeah (.) oh good, that's great (.) and um: (.) in creating these emblems that occur in some movements, do you think about your movements as necessarily, as having different dimensions, meaning like the x dimension which is like back to front, the y dimension, the right and the left, and then the z dimension, the up and the down?

170 C8: Yeah, I do (0.5) I actually think of where it is in correlation to my body, I just (.) I just need to see it from a different angle I think (0.5) to really fix it too (.) because I know sometimes I feel like it can be awkward, and if you don't respond to it, cuz they know I'm maybe nervous or

171 R: Mm:.

172 C8: don't feel like I'm very sure about it

173 R: Mm hmm.

174 C8: so (.) yeah I do think about that a little bit (.) yeah, and I

175 R: I think for me...

176 C8: I think it's an effective thing, I think to fix (0.5) you know, you should maybe film yourself often to do that=

177 R: =Yeah.

178 C8: to fix those things, if you feel like they need to be fixed anyways.

179 R: Mm hmm.

180 C8: Yeah.

181 R: And for me, the z dimension or this up and the down

182 C8: Mm hmm.

183 R: I really learned from some of my mentors, like (.) the up is sometimes the upper woodwinds are up here [brings her right hand level with her face]

184 C8: Yeah.

185 R: and the low brasses and the trombones, like the whole back row, if you

186 C8: Yeah.

187 R: want to dig deep into a pesante, the heavy sound is down here. [Brings her arms level with her waist.]

188 C8: Totally, yeah.

189 R: And so (.) sometimes a lot of people don't think about this dimension very much, about (.) up here could mean something different=

190 C8: =Mm hmm.

191 R: than conducting down here.

192 C8: And it gets too high sometimes too, like (.) if you're up here [brings hands above his head] you're just =

193 R: =Mm hmm.

194 C8: you're not doing anybody any good, I don't think. [Chuckles]

195 R: No [chuckles] I know.

196 C8: [Laughs] and then you look funny.

197 R: That's so true, I remember someone always said to me, make sure it's framed by your face, like (.) if you are way up here [brings right hand to her eye level] it's gotta be around your face cuz it can't be like...

198 C8: Can't be over your head.=

199 R: =No.

200 C8: Maybe even like, it should be like, the conducting plane (0.5) should probably be from your waist (.) to like your chin, maybe or something

201 R: Mm hmm.

202 C8: and then anything above that is getting (.) too much, that's just my opinion.

203 R: Me too.

204 C8: Yeah.

205 R: And I remember once (.) when we did *Jupiter, from The Planets*=

206 C8: =Oh yeah.

207 R: and I gave this grand cut off that was way up here [demonstrates high release gesture at eye level] and then I realized the next sound was like way down there, so like broom. [Quickly drops arms down to waist level]

208 C8: Oh (.) oh yeah.

209 R: So I gave this cut off, and I was way up here, and then I had to all of a sudden drop my arms like really fast to get down here, but it was so awkward, right, and then it was like [demonstrates the upper plane release gesture] and then boom. [Demonstrates the sporadic drop of her arms to a lower conducting plane]

210 C8: [Laughs for 2.0 seconds]

211 R: [Laughs] There is no prep, when you are way up here, you can't really prep that sound. You just have to drop your arms, but I remember the ensemble was like (0.5) brrroom. [Giggles]

212 C8: [Chuckles]

213 R: That was a bit of a funny moment, but...

214 C8: [Chuckles]

215 R: I'm just going to say a few scenarios and maybe you show a gesture you might do to reflect it. So if the sound moment is rising in pitch, what action might you do?

216 C8: Um: (.) uh (.) maybe like a (.) something like (.) you know (.) moving your pattern up just a little bit

217 R: Mm hmm.

218 C8: you're sitting, so it's going up too high, but yeah.=

219 R: =Yeah.

220 C8: If you're starting low, you gotta make it smaller before you get to that, so it just shows that you are rising up in pitch, cuz (.) uh, especially maybe like a chromatic line or something like that=

221 R: =Mm hmm.

222 C8: like, boo:.....[sings an ascending and descending chromatic line]

223 R: Mm hmm.

224 C8: or something like that, you know?

225 R: Mm hmm (.) you just answered my next question, if the pitch is falling what action might you do?

226 C8: Oh okay.

227 R: So you just showed me. [Giggles]

228 C8: Pesante. [Laughs]

229 R: =But maybe your answer would be different? I don't know.

230 C8: Yeah, it's probably the same thing (0.5) like showing a diminuendo, starting out higher and going a bit lower

231 R: Mm hmm.

232 C8: something like that.

233 R: Mm hmm (.) and then uh, if the sound moment is light and quick, like um: ba da deet

234 C8: Yeah.

235 R: ba da deet. What would you maybe do?

236 C8: It would be up higher

237 R: Mm:.

238 C8: and very uh (.) very, quite pointed, um: (.) if it was legato though, but if it was like what you said, like that, then it would probably would be a very pointed, very small pattern=

239 R: =Mm hmm.

240 C8: and up higher maybe, cuz that's quite high woodwinds, or something, brass maybe, like trumpets.

241 R: Yeah.=

242 C8: =Yeah.

243 R: Yeah (.) and then if the sound moment is strong and sudden like a bass drum boom or a cymbal crash, how might you move?

244 C8: Um: (.) I probably would use both hands, for example, if it was on a down beat especially [demonstrates a gesture that brings both hands together] and like

245 R: Mm:.....

246 C8: probably right in the middle.=

247 R: =Mm hmm (.) yeah, almost the action that a drummer would make to create the sound, kind of.=

248 C8: =Yeah, exactly.

249 R: Mm hmm (.) yeah, it's like string players, they breathe with their bow, and a lot of times, they like to see the conductor reflect the bowing in the gesture, which is something totally

250 C8: Oh.

251 R: not discussed usually because (0.5) well we don't get a chance to conduct orchestras so much here.

252 C8: Exactly, yeah.

253 R: But if we did throw you into an orchestral situation, then you'd have to know sort of the bowings on all of their melodies and if you really wanted to get a certain reaction out of their bowing, then you might have to do a gesture that reflects their bowing.

254 C8: Yeah.

255 R: But that's a whole other level.

256 C8: It's a whole new world.

257 R: Yeah, I don't claim to know that world, but I think

258 C8: Neither do I.=

259 R: =it's really interesting.

260 C8: Um:...

261 R: So, do you think um (.) emblematic movements can have shapes to them?

262 C8: (3.0) Um: (.) yeah maybe in a way, yeah, maybe it depends on how your hand is moving, maybe like (.) if you're still using that punch, it doesn't have to be that big, which is just, maybe it's a (.) I don't know (.) a big fat note in the brass, that's like sort of mezzo forte

263 R: Mm hm.

264 C8: or something, I don't know

265 R: Mm hm.

266 C8: something not as hard.

267 R: Mm hmm.

268 C8: There is (1.0) there is definitely leeway I think either way, to make it really hard

269 R: Mm hm.

270 C8: or really soft.

271 R: Yeah.=

272 C8: =Like with the press (.) I don't know, maybe it's like a glissando

273 R: Mm hmm.

274 C8: or something like that, yeah.

275 R: Excellent (.) those are all really good examples.

276 C8: Yeah.

277 R: Mm hmm (1.5) in my work (.) or in my study, this notion of salience is important (1.0) which (0.5) salience, meaning (.) um: (.) a gesture or sound that stands out relative to its neighbour gestures or sounds.

278 C8: Okay.=

279 R: =So for example, like a big hit moment that's proceeded by soft music, and then soft music after=

280 C8: =Okay.

281 R: so...

282 C8: So, how would you approach that?

283 R: Yeah, I was going to ask you how you feel a conductor can use this notion of salience in his or her movement (.) like (.) to an advantage?

284 C8: Uh:::...

285 R: In his or her movement.

286 C8: Okay, so (.) so I guess (.) what I understand from what you said=

287 R: =Mm hmm.

288 C8: so it's like, if we are using the punch for example, and you're coming up to a moment like that, but there is nothing really big happening, it's sort of like

289 R: Yeah.

290 C8: a subito or something like that.=

291 R: =Mm hmm.

292 C8: Um: (1.0) yeah, the way to approach that, may be just like (.) a small pattern, and uh (.) getting ready, eyes up, looking at the back row, if it's like percussion or something like that, or brass and uh (.) make sure they're all looking at you, and use both hands probably for a

293 R: Mm hmm.

294 C8: big gesture or something like that, is that what you mean?

295 R: Yeah.

296 C8: And then if it's back down, then (0.5) then back down.

297 R: Yeah, good point.

298 C8: Yeah, it's good to use your mouth too (.) like (.) sort of like (.) I don't know...

299 R: Yeah, like whoa, especially if they are, perhaps not coming down enough or

300 C8: Yeah.=

301 R: =afterward.

302 C8: And people respond to that too, and eyes are a good thing too. If your eyes go big

303 R: [Laughs] yeah.

304 C8: I'd respond to that right away. I'd be like, okay...

305 R: Eyebrows up or eyes

306 C8: Eyebrows and eyes.

307 R: kind of like (.) what?

308 C8: A lot of different aspects, not just your hands and your arms

309 R: Mm hmm.

310 C8: like your body movement, and your facial expression, totally.

311 R: Mm hmm.

312 C8: Yeah.

313 R: (2.0) Now, in your movements, that you've conducted with (0.5) let's say, do you think about your movements as being (.) mostly Spontaneous (.) that occur directly in the moment, or are there times when you think ahead to the moment (.) to the sound moment in your mind, and sort of pre-plan your action?

314 C8: I did, yeah, I did pre-plan a little bit, a lot of it was sometimes spontaneous (.) for sure, especially with the first time through, it was spontaneous, but like, I felt like they had in the score, I was trying not to look too much at the score, because that's breaking the connection between the ensemble.

315 R: Mm hmm you do both perhaps?=
 316 C8: =Yeah I was kind of in between, yeah, I was sort of spontaneous, but I had also seen like (.) uh (.) something that was coming up, you know, for the ending, so I was like, maybe do something there with, I don't know, for a good ending, or something like that too.=

317 R: =Mm hmm.

318 C8: Yeah, a little bit of both I think. [Chuckles]=

319 R: Yeah, that's good. I think um: (.) to me, both are really important aspects of conducting (1.0) that you are open to (.) and you're reacting to the sounds that have been produced, and perhaps you change your gesture because you really want a different type of thing to happen

320 C8: Yeah.

321 R: or um: (1.0) or you think, okay yeah, that big hit is coming up, and yeah, I really want to show that somehow (.) and you kind of pre-plan it (0.5) ah::: okay it's coming.=

322 C8: =Yeah exactly.

323 R: Yeah (.) if the sound moment is sustained and has notes that ascend to a light note (2.0) how might you move?

324 C8: So starting off, like sort of maybe heavy, and then getting lighter?=
 325 R: =Mm hmm.

326 C8: Um: (2.0) sort of like a rising gesture again, and you're starting off low and it's getting smaller and smaller within the pattern, going up a little bit

327 R: Mm hmm (.) yeah.

328 C8: and then staying up there to finish off the section that's soft.

329 R: Yeah, yeah that's important, I think, you have a good connection and location of where you are, and how that really effects the sound.

330 C8: Yeah.

331 R: Good (.) so we'll talk briefly about this accuracy test you had to do two times

332 C8: Okay.

333 R: and each part of it, and what your thoughts um: (.) were during that (0.5) so, do you think your score, now I don't have your test scores here (.) because I actually haven't run them yet, but=

334 C8: =Kay.

335 R: do you think your score improved having conducted the excerpts in Learning Session Two?

336 C8: Yes, I think so (.) I've heard them way more than most people, and I had a picture in my mind of how I was doing it, so I think that helped when I saw someone else doing it too, cuz (.) especially when it was silent (.) you could just tell there was no particular one other than the ba da da, ba da da, ba da da, boom

337 R: Yeah.

338 C8: that one I would recognize right away.

339 R: You made an immediate connection to that?

340 C8: Yeah, so yeah, I think we had like a little bit of uh (.) an advantage, because the conductors has already (.) done it the first time, and done it recently.=

341 R: =Mm hmm.

342 C8: I think that was, yeah, I think it helped.

343 R: Over the conductors who didn't get that learning session?

344 C8: Yeah.=
 345 R: =Mm hmm.
 346 C8: and how many of them, was there four of them too?
 347 R: Three.
 348 C8: There was three of them?
 349 R: There was supposed to be, in a perfect study there would have been four and four, but in my study there was three, but...
 350 C8: Okay.
 351 R: [Laughs] but yeah, no (.) I think (.) at least I hope, and I would predict that to be true.
 352 C8: Yeah.
 353 R: Mm hmm (.) yeah and in the accuracy tests (.) now we will go through each of the parts and sort of get your thoughts (0.5) in the accuracy test Part One, you listened to three audios and watched one video
 354 C8: Mm hmm.
 355 R: and you had to select a sound that best fit the gesture, or you watched one video and heard three sounds.
 356 C8: Mm hmm.
 357 R: Which did you prefer (0.5) the video first and then the three sounds, or the three sounds and then the video?
 358 C8: Uh, I think it was the video I preferred most. Yeah (.) seeing the video first was easier, cuz you could have that in your mind, rather than having the three sounds [chuckles] it was kind of tricky.
 359 R: Mm hmm yeah.
 360 C8: Yeah, most definitely I'm a more visual person, I think.
 361 R: Mm hmm (.) and then in the accuracy test Part Two, when you watched three videos and then heard one sound, or heard one sound and watched three videos, which did you prefer there?
 362 C8: Well, that time (.) it was the sound first that was easier, because you could memorize the sound and then memorize the three videos, I could picture the sound and I could try to line up the length of the excerpt with the video and stuff too.
 363 R: Good (.) yeah, most people feel the way you feel about both parts [laughs]
 364 C8: Yeah?
 365 R: and actually, I feel exactly the same when I had to take my own test as well.
 366 C8: Yeah?
 367 R: Even though my:: scores can't go in the study write up, but
 368 C8: Right, yeah.
 369 R: as a researcher you have to take your own tests to see if it's even, what you think about it.
 370 C8: If it's going to be effective enough
 371 R: Mm hmm.
 372 C8: or good enough research.
 373 R: That's right.
 374 C8: Yeah.
 375 R: And so in Part Three you were (.) you were asked to watch three different audio and gesture combinations, and select the one that made the most auditory and visual sense
 376 C8: Yeah.
 377 R: what were your thoughts when you had to do that?
 378 C8: Uh, I thought that was actually pretty good. I thought they were pretty effective actually, cuz it shows all the different excerpts and if they even line up or not (0.5) and like, I think that was pretty good. I did prefer like, Part One and Part Two over Part Three though
 379 R: Mm hmm.=
 380 C8: =Part Three was a little harder too in that way, but yeah
 381 R: Good.=
 382 C8: =it was alright.
 383 R: Thanks (.) and um: (.) there is something I really toil with (.) and you kind of touched on it in the start of the interview, so I am glad we can come back to it (0.5) there is this funny paradox in my work, with (.) two situations, so I want you to speak to both.
 384 C8: Kay.
 385 R: Okay, the first situation is that the gestural landscape of some conductors is very beautiful and expressive, and contains affective qualities, yet the ensemble plays blandly without any musical shape, phrase or expression.
 386 C8: Right.
 387 R: So that's one of them.
 388 C8: Kay.
 389 R: And then the opposite, where the ensemble plays so beautifully with phrasing and affect (.) and the time and amplitude changes (.) are diverse, yet the conducting is bland and boring
 390 C8: Mm hmm.
 391 R: and simply a pattern=
 392 C8: =Okay.
 393 R: with little else going on, so what do you think? Or I guess, why do you think these two occur (.) and what do you think is breaking down in this communication? Or what factors caused these things?

394 C8: Okay, I think for the first one (.) when the conductor is expressive, and the ensemble is not reacting is because a lack of the respect, or something.

395 R: Mm:.=

396 C8: =or maybe they don't (.) like the conductor maybe, something like that, that's very possible and maybe they are not a very (.) responsive group, I don't (0.5) or their hearts aren't there, I don't know

397 R: Mm hmm.

398 C8: they just don't care, or maybe (.) like (1.0) well I guess I already covered that, maybe they just don't like the conductor.

399 R: Mm hmm.

400 C8: I think that's probably the reason why (.) they wouldn't respond in a way, though they should

401 R: Yeah. [Chuckles]

402 C8: cuz the conductor's the boss usually.

403 R: Yeah, well...

404 C8: The second one, um: (.) I think is because maybe the group is uh (.) um: (1.0) very inexperienced, maybe?

405 R: Mm:.

406 C8: Maybe they don't understand (.) what the conductor is doing, um: (.) maybe the conductor is too advanced for them?

407 R: Mm:.

408 C8: The conductor needs to (.) dummy it down a little bit, or something. [Laughs]

409 R: [Laughs]

410 C8: Oh wait, no sorry (0.5) the conductor is the one that is too bland in that one.

411 R: That's okay, that one would work for the first one though. [Laughs]

412 C8: Yeah, that was all the first one. In the second one, the band is expressive, sorry and the conductor

413 R: Is kind of boring.=

414 C8: =must be inexperienced, and maybe doesn't know the score all that well, but the band is just really good, and they are all just great players, and they all have been playing with each other for a long time, or something like that.

415 R: Mm hmm (.) yeah good point, I think all of those reasons can be true, right?

416 C8: Yeah, so yeah.

417 R: Good (.) well thanks.

418 C8: Yeah.

419 R: Great, and then um: (.) do you believe that this study has improved your own connection between the musical expression found in the score and the movements (1.0) that you chose to convey?

420 C8: I believe so (0.5) yeah, I think it gives, it helps me to look at (.) what I'm doing and what I look like (.) cuz you have to be there with a purpose, you can tell (.) that amateur people, they don't, they're up there doing it, and they don't know how to do it yet (0.5) it takes time to get better at it (.) so that's something I want to work on, getting better (.) at looking good up there=

421 R: =Mm hmm.

422 C8: and looking (1.0) like I know what I'm doing, not that I have to look like, good, but=

423 R: =Mm hmm.

424 C8: people would know (.) he has confidence, that's one of the biggest things.=

425 R: =Yeah, and I think you said (.) if you've done your score study, and you want to move with intent and purpose

426 C8: Mm hmm.

427 R: and then if you believe the intent and purpose behind your movement makes sense, then you have confidence, I think.

428 C8: Yeah exactly.

429 R: And other people will gain confidence, if they see you moving with purpose.

430 C8: Yeah, and people respond to that really well too, like when someone knows the score so well, you're just like (0.5) you have more trust in them too, I think, it's a big trust thing

431 R: Mm hmm.

432 C8: I think the conductor needs to have (.) way (0.5) so much confidence for sure

433 R: Mm hmm.=

434 C8: =for the ensemble to respond, and in the scenario you're talking about, where (.) well maybe, you're talking about the conductor is not super expressive

435 R: Mm hmm.

436 C8: and the orchestra is expressive, they just know (.) communication, you just can't, the orchestra knows what they are doing

437 R: Yeah.

438 C8: or the band, or whatever.

439 R: They are experienced enough as performers, to be able to play beautifully no matter what they're given.

440 C8: Exactly.

441 R: Yeah, yeah (.) I've often wondered that when I went to work with the more experienced groups, that were more experienced than me as a conductor (.) if it was because I was really showing these great things, or if it was because (.) they were just great players.

442 C8: Yeah.

443 R: So it was like (0.5) you kind of get an idea of the amount of respect with adults, anyway, with how much their eyes are up.

444 C8: Yeah.

445 R: Yeah, if they are kind of watching you for the expression, they're making a connection with what you are doing with their eyes (.) and they are trying to respond in their sound, then you probably have a good respect

446 C8: Mm hmm.

447 R: and if they're eyes are like right down in their books, and they are not looking up at all, then you know they are just performing well, and not really caring what you do. [Laughs]

448 C8: Yeah, exactly, yeah.

449 R: Or anyways, at least with the more professional performers anyways.

450 C8: Yeah exactly (.) yeah.

451 R: With the kids, you have to draw up their eyes (0.5) one thing I kind of learned with students (1.0) is that you don't have to change your technique, you wanna use even better technique with kids (.) and teach them the meaning behind your technique, and get them to respond to your technique (.) and um: (.) and they'll get it, and they'll be able to respond, so yeah.

452 C8: Mm hmm yeah.

453 R: Good, and then um: (1.0) based on your participation in this study, if I were to run it again, let's stay as a course next year, or as another opportunity for undergrads to do it, would you encourage people to incorporate this kind of thing into their own conducting practice?

454 C8: Yeah, I think it would be a good thing to do, because when you get more uh (.) more practice with it, because after you're done the first course, or the first two courses, you're done with it, and you don't have to put it into practice if you don't want to.

455 R: Mm..

456 C8: But I know, what I have (0.5) I know what I should do, and it's just (.) a matter of doing it, because school is so busy with everything else, anyways, so yeah, it would be a good thing to do (.) even just a half course (0.5) a semester would help I think

457 R: Mm hmm.

458 C8: because then people could take it in the last semester of their undergrad, and it's still with them when they go into student teaching if they are.

459 R: Yeah, good point, those are great points (.) because then like you said, you have more confidence, with the left hand, because=

460 C8: =Yeah.

461 R: you have a good foundation of the patterns and what do to with them, and then (0.5) you have a good foundation of what to do with the other hand.

462 C8: Yeah, and if you could just get an ensemble and have them play all of the excerpts you have or something

463 R: Mm hmm.=

464 C8: =that would be great too, because that gives you more confidence, I found, it's actually hard, conducting in front of your peers

465 R: Mm hmm.

466 C8: because, I mean, I don't know (0.5) who knows what they think?

467 R: Yeah no, I agree.

468 C8: I mean, who cares, they're just following, they just have to put their trust in you completely.

469 R: Mm hmm.

470 C8: Yeah.

471 R: Absolutely, absolutely, and um: (.) do you consider that you got some kind of lasting benefit, as a (.) maybe (.) as a future conductor or musician, or future music educator?

472 C8: I think so, yeah, the feedback I got from you was good, I thought so um: (.) (1.0) you had pretty good comments for the most part, I just, I just had never seen what my pattern looked like, and you told me that it is very clear, so I always wondered, I always assumed that I had a pretty clear pattern

473 R: Yeah.

474 C8: but I didn't know that, so and uh (.) using the left hand, yeah that is something that I'd really like to work on, just using the left hand.

475 R: Yeah.

476 C8: So that was good to hear feedback, about that.

477 R: Great, it was good, I know that the cat analogy was really funny

478 C8: Yeah.=

479 R: =because we gave you a mental image, and I said it out loud to everybody, but had I whispered that in your ear, then they wouldn't have known

480 C8: They wouldn't have known.

481 R: and then um: (.) you're experimenting with a new gesture, and they're responding

482 C8: Mm hmm.

483 R: but um:...

484 C8: When you're doing that, and extend your hand up like this [demonstrates gesture position] with your thumb out, then it's more inviting, I knew that, I just forgot about it.

485 R: Yeah.

486 C8: You forget about things too, when you reminded me about that, that's totally true () actually I'm come into your world pretty much that's what's playing

487 R: That's right, then

488 C8: and people do respond in that way, if you respond, like (.) I don't know, then it just doesn't make much sense

489 R: Yeah, that's so true, and I know I haven't given you guys your video footage yet, but when you watch some of those things, you'll notice a difference in how it looks from when you tried it the first way to the second way.

490 C8: Right, yeah I think I will (.) yeah.

491 R: Good, good (.) that's great (0.5) and um: (.) how has your, I guess is it mostly linked to left hand gestures, that this study has changed your understanding of conducting, or...?

492 C8: Yeah, um: (.) even like (.) uh (.) you use the left hand a lot, but even like a facial expression um: (.) and like you, you are up there for a purpose, you have to look like you have a purpose, and not like you're bored, or um: (.) you're supposed to be there in the music and not

493 R: Mm hmm.

494 C8: anywhere else, that made me think about that a lot

495 R: Mm::=

496 C8: =that you are up there for a purpose and showing that, and looking confident for your players (.) so that they respond to you.

497 R: Mm hmm (.) yeah, and then the one (.) moment, we had, you had (.) you found the power of your facial expression with the gesture.

498 C8: Yeah, when I made that one face.=

499 R: =And during the gesture (0.5) they knew what we were thinking, and then they found it comical, but had they not known what we were thinking, the face plus that gesture was like, super powerful.

500 C8: Exactly

501 R: Yeah, so you had to be...

502 C8: if I wasn't like trying to be funny=

503 R: =Yeah, no.

504 C8: if I wasn't like, a funny guy, or something like that.

505 R: Yeah, but it was good because it taught you how powerful both are, right? [Laughs]

506 C8: Exactly, yeah.

507 R: That's right, and then um: (.) having done these accuracy tests and the motion capture stuff, do you find, do you consider yourself a better observer of these emblems?

508 C8: Um: (.) yeah (.) I belie...yeah, even yeah, I just, the emblems, even like conducting or just anything (.) is like, just looking at those emblems, it shows the exact movement of the arms

509 R: Mm::.

510 C8: and their heads too (.) I wish you could see their eyes, you probably filmed it too

511 R: Yes:.

512 C8: yeah, so you know what they look like (0.5) just to see what they're doing with their face too would be great.=

513 R: =Mm hmm.

514 C8: Yeah, now I'm observing conducting in a different way a little bit more now.

515 R: Good (.) excellent.

516 C8: Yeah.

517 R: Almost done [chuckles] you were randomly selected to receive the coaching and the performance exercises too and participate in what I call (.) the review, the gestural review process (0.5) where we looked at a series of six conductors and their four excerpts.

518 C8: Right.

519 R: Um: (1.0) do you believe these learning sessions increased your accuracy to match the emblem gesture with its sound?

520 C8: Yeah, absolutely. [Chuckles]

521 R: [Chuckles]

522 C8: Yeah, cuz you see what they're doing, and it gives you an idea of what you could look like (.) especially with the sound being on the same video too.

523 R: Mm hmm.

524 C8: Yeah, no, I think it definitely helped.

525 R: Great (.) and do you consider yourself more able to communicate phrasing and shape with your gestures?

526 C8: Uh, yeah I think so, yeah (0.5) maybe not so much phrasing, but the gestures

527 R: Mm hmm.

528 C8: like certain things, phrasing is a whole other thing=

529 R: =Mm hmm.

530 C8: I think.

531 R: Well that's a whole other (.) another, kind of um: (.) I think level of expertise that

532 C8: Yeah.

533 R: you really really work on (.) to achieve

534 C8: Mm hmm.=

535 R: =and uh (.) and it's not necessarily something that has to be, like (.) hard to get at, because some people think that it is a really difficult movement strategy

536 C8: Yeah.

537 R: and you just need to have some different like (.) abstract things in your mind, to be able to produce it in the moment

538 C8: Mm hmm.

539 R: and (.) um: (.) and it's just being coached through it, with a (.) sort of mentor, like Dr. Jeremy Brown or so on

540 C8: Yeah.

541 R: to really help you (.) to be able to get, get at what you want, and how to manipulate your arm and hand to get different phrasings.

542 C8: Right.

543 R: Yeah.

544 C8: Yeah, I agree.

545 R: Good (.) and do you consider yourself more capable to reflect the indicated dynamics and articulations in your gestures?

546 C8: Uh: (.) yeah, definitely, but looking at, especially, like when we were looking at the punch (.) for example, just like the (.) like I had it way out here [demonstrates a fully extended punch to the right of his body]

547 R: Yeah.

548 C8: and I was just like

549 R: [Laughs]

550 C8: too big, I had to pull it back a little bit.

551 R: Yeah, right.

552 C8: I think, it yeah, it definitely does help, it all helps a little bit (.) for sure.

553 R: Good (.) excellent, and um: (.) do you think that coming into the motion capture lab and participating in that portion changed the way you think about your movements, in these key sound moments found in marches?

554 C8: Yeah, in a way it did for sure, um: (.) especially having that suit on, and with like the markers on the baton, it made it a little heavier, so it's just like, you really have to react in a certain way, and like (0.5) you want to like (.) react in a way that was right when it came (.) when you heard the excerpts.

555 R: Mm hmm.

556 C8: I was just kind of nervous being in there

557 R: [Giggles]

558 C8: cuz it felt weird sometimes.

559 R: Yeah, um: (.) we say, put all this gear on and act as normal as possible.

560 C8: Yeah exactly.

561 R: [Laughs] Yeah when you have twenty-three markers, a cap and a baton that weights heavier than normal=

562 C8: =Exactly yeah.

563 R: now act normal, right?

564 C8: Now act normal, yeah.

565 R: And the purpose behind the motion capture was just to be able to measure the, how your movement changed from the first time to the second time you went into the lab.

566 C8: Mm hmm.

567 R: And then (.) also, like how the sound inspired your movement, rather than having a score inspire it (.) or the musical line inspire it.

568 C8: Right.=

569 R: =Just having those pure emblems by themselves, if that would cause you to do a different movement, so something we can look at (.) and hopefully I will have time to do it in one year, but I will look at the movements you made with the gestures when, or the emblems when they were on their own, and then I will look at the movements you made on those emblems when you had the whole musical line

570 C8: Okay yeah.

571 R: and to see how they were different.

572 C8: Oh yeah okay.

573 R: Mm hmm.

574 C8: That'll be good.

575 R: So anyways, something I can compare and look at.

576 C8: Mm hmm.

577 R: So, yeah (.) that's all I have, thank you for your time and your energy, and your valuable insights, it has been a pleasure working with you, as always, and so, do you have any final thoughts?

578 C8: Uh, no, I thought this was good, it was a pretty good course, if you could offer it, like just (.) the emblems and uh (.) phrasing, phrasing is a big thing I think

579 R: Mm hmm.

580 C8: as a conductor, it would be hard (.) but uh (.) after awhile it gets easier too, because at first it seems like it is hard, but it can be achieved, it just needs more practice.

581 R: That's right.

582 C8: Yeah.

583 R: And I think, um: (.) even though working with your peer groups is a little (.) um: (.) annoying to have to do, it's good to have like (.) a set of musicians (.) that are trying to respond to the changes you make, and then if everyone that was in the course, was also playing for each other

584 C8: Right.

585 R: then you could test out how you are doing on these and get some coaching on them, I think that's really fun.

586 C8: Yeah it's good.

587 R: Because I found, and I don't know, because I can't remember how many other people you observed that day, or if you just observed one other person, other than yourself.

588 C8: Oh right, yeah.

589 R: Like if you were in the room when I was coaching someone else?=
590 C8: =You coached Conductor Eight, when I was there for a bit.

591 R: A bit of it?

592 C8: Yeah.

593 R: Okay, because every person we found just had different things, that I would say.

594 C8: Yeah.

595 R: So some things of yours would be very similar, but many things were very different, so another conductor did some things that he found out were weird habits that he probably wasn't aware that he was doing

596 C8: Yeah.

597 R: and another conductor found out some things, and you found out some things, but they were all so different.

598 C8: Yeah, okay, yeah.=

599 R: =Right, and so that's what I find kind of cool in that sort of coaching session, that (.) if you had a multiple number of coaching sessions, then you could take the feedback and really get something out of that.

600 C8: Right , yeah, yeah

601 R: Mm:.

602 C8: totally.

603 R: Great (.) well thank you for your time

604 C8: Yeah, you're welcome.=

605 R: =and for coming in, and uh (.) doing this interview with me, and also for doing this study, when I know you are really busy and you have a lot on the go.

606 C8: No problem.

607 R: So I really appreciate that, and um: (.) yeah, that concludes our, it officially concludes our interview.

608 C8: Kay.

609 R: [Chuckles]

610 C8: Alright.

611 R: Alright. [Turns off the recording devices]

Conductor Nine

- 1 R: [Starts the recording devices] Let's uh:: (.) thank you for mee:ting um: (.) I um:: (.) I am recording you on the USB microphone, just so I can transcribe your answers
- 2 C9: Okay.
- 3 R: uh (.) later and the video is just for my own transcription purposes if that crashes.
- 4 C9: Sounds good.
- 5 R: So (.) and um::(.) nothing that you say will be put into my disserta::tion without you reading it first.
- 6 C9: Okay.
- 7 R: So for example if I wanted to take one of your quotes from the interview (.) and include it in there, I would email it to you first, you would read it over and tell me, "yes that's what I meant, or (.) no I really meant that"=
- 8 C9: =Okay.
- 9 R: and or "I don't want that included at all" (0.7) so you can say if I paraphrased or quoted you correctly and you give me permission to use it or not later on.
- 10 C9: Sounds good.=
- 11 R: =Then in the dissertation, if I do quote you (0.5) and you do approve it, it would be under your conductor number and not your name.
- 12 C9: Alright, okay.
- 13 R: So there's a lot of anonymity involved here. So the purpose of today (.) is just to get your thoughts about the sessions that you went through in the study (.) and some of your general thou::ghts about conducting (1.0) and it's just more of a (.) qualitative way for me to:: collect everyone's thoughts about it, and then I take all of your thoughts (.) and I analyze them and I get some themes that come out of the sessions that I can um: (.) further look into (.) for the study so, yay. So state your name in fu:ll.
- 14 C9: _____.
- 15 R: Perfect (0.5) and how old are you?
- 16 C9: Twenty three.
- 17 R: And you're currently enrolled as an undergraduate student here at the University of Calgary?
- 18 C9: Yes.
- 19 R: And uh, what uh (.) year of your program are you in?
- 20 C9: Uh:: (.) I just finished (.) number two.
- 21 R: Awesome. And then what um:: (.) I know there's many streams of the::: (0.6) are you in the Bachelor of Music
- 22 C9: Yes.
- 23 R: Integrated thing?
- 24 C9: Mm hmm.
- 25 R: Or what is your stream?
- 26 C9: Yeah right now, I am in the Bachelor of Music Integrated so::
- 27 R: Okay.
- 28 C9: so yeah (.) I'm hoping to go through with that.
- 29 R: Yeah (.) and what are your kind of areas you're focusing on? Some students were explaining to me you can focus on different areas.=
- 30 C9: =Yeah (.) I wanna focus on theory, and I would like to do (.) um:: a recital (.) next year or the year after, so::...
- 31 R: Yeah, in voice?
- 32 C9: In voice.
- 33 R: Yes okay, yeah.
- 34 C9: And I eventually want to go into conducting (0.5) further after I'm finished with that, I know you can't focus on conducting here at UofC but eventually somewhere else.
- 35 R: Yeah yeah yeah, yeah that's great. So you're thinking about that (.) as a masters perhaps?
- 36 C9: Yeah.
- 37 R: Conducting performance or going somewhere with your conducting.
- 38 C9: Exactly.
- 39 R: That's great (.) um: (.) this is a little bit out of order, my questions, in my interview, but um: (.) have you thought about doing um: (.) summer conducting symposiums?
- 40 C9: Yes, I've heard (.) I've heard of a few of them, but I haven't really gone through with anything yet
- 41 R: Yeah.
- 42 C9: but it would be nice to explore that.
- 43 R: Yes I know (1.0) and I don't know sometimes you may have to have your undergraduate degree first=
- 44 C9: =Right.
- 45 R: uh:: (.) before applying, but others may invite you to be a part of it, sometimes they require you to send a video:
- 46 C9: Right.=
- 47 R: =of yourself conducting, others just want to see like (.) your resume and some things that you've studied.
- 48 C9: Some kind of groundwork.
- 49 R: Yeah and I think, oh they're very intense, the ones that I've done, um: (.) I've done (1.0) one here that Jeremy Brown and Mark Hopkins uh (.) were in charge of and there um:

50 C9: Okay.

51 R: are a couple here anyway, that come up in the summers, and if they come up they're open, right?

52 C9: Mm hmm.

53 R: And I've also done uh (.) one at Acadia University where Mark Hopkins

54 C9: Oh, okay.

55 R: teaches and I think (.) mm hmm:: (.) I think those have been the primary ones that I've been involved with, but anyway I know they do them all over the US as well, and a lot of times they want teachers, or people who are you know working with groups already, and would really be able to use it

56 C9: Mm hmm.

57 R: right?

58 C9: That makes sense.

59 R: Well so that would be fun for you to get some more experience and feedback

60 C9: Yeah.

61 R: even before you apply to a Master of Music program.=

62 C9: =Exactly (.) that's what I want to do.

63 R: Because then you can sort of fix some of the things before you apply, yeah.

64 C9: For sure.

65 R: Get some feedback (0.5) but that's great. And um:: (.) have you taken the two conducting classes here already then?

66 C9: Yes.

67 R: Mmkay.

68 C9: That has yeah (.) just has been extremely good.

69 R: You're just finishing that

70 C9: Yeah.

71 R: or finished that?

72 C9: Yeah.

73 R: And um:: (.) had you taken any private lessons through the Stampede Band or anything?

74 C9: With conducting?

75 R: Yeah.

76 C9: No, not

77 R: Okay.

78 C9: really, no (0.3) not really, there's nothing like that (.) that they've provided.=

79 R: =Right.

80 C9: But I mean, it'd be nice.=

81 R: =Yeah. [Laughter]

82 C9: [Laughter]

83 R: And um: (.) so no, you haven't had any um: (.) private lessons

84 C9: No.

85 R: in conducting?

86 C9: I have um: (.) talked to Tim Shantz though

87 R: Okay.

88 C9: about conducting lessons, but that was a little while ago and since then it hasn't really come up

89 R: Yeah.

90 C9: but he said he would offer them

91 R: Yeah.

92 C9: for me, so::...

93 R: That would be cool, and where (0.5) I'm sorry I don't know him (.) cuz I'm from Michigan, but [laughter] who's Tim?

94 C9: Oh, he's um: (.) the:: um: (.) artistic director of Spiritus Chamber Choir

95 R: Oh:::

96 C9: here in Calgary=

97 R: =Okay.

98 C9: and um: (.) back in uh: (.) November I had the opportunity of conducting them (.) just singing one piece.=

99 R: =Oh, okay.

100 C9: Because and what happened was last year, last May at their final concert of the season, they had a silent auction

101 R: Oh yeah.=

102 C9: =and they auctioned off a spot

103 R: Yeah.
 104 C9: or um: (.) a chance to conduct the choir =
 105 R: =Oh coo::l.
 106 C9: So I won that=
 107 R: =Ah::..
 108 C9: and then this past November, yeah
 109 R: You got to:....
 110 C9: I got to choose a piece=
 111 R: =Yeah.
 112 C9: and they learned it, and I conducted.
 113 R: Oh::: wow that's so cool.
 114 C9: Yeah.
 115 R: And how many rehearsals did you get?
 116 C9: Uh: (.) there was (0.5) one, two (0.7) I think two.
 117 R: Two (0.5) two rehearsals, and then the concert?
 118 C9: Yeah.
 119 R: Oh wo::w, what piece did you choose? And it's for SATB (.) or?
 120 C9: Uh(.) it's *La Nuit* by Rameau. It's a really nice piece (.) yeah, that was (.) was for four, yeah. Anyway, Tim was great like he, we met a couple of times before the concert and between the lessons and he gave me a few pointers, and
 121 R: Oh good.
 122 C9: just (.) you know (0.5) it was like lessons right there
 123 R: Yeah.=
 124 C9: =and he said that he would be willing to give me a little bit more
 125 R: Mm hmm.
 126 C9: later on.
 127 R: And that's so great, and I think um: (.) I have these talks with Dr. Whidden about this a lot because when I was doing my Masters in Instrumental Conducting
 128 C9: Mm hmm.
 129 R: she was doing her Masters, or her PhD, sorry in um: (.) Music Education but=
 130 C9: =Right.
 131 R: um: (.) she being a choral person and I (.) the instrumental person, we had really good talks
 132 C9: Good.
 133 R: about the different conducting styles.
 134 C9: Yeah.
 135 R: And she also knows about, you could ask her (0.3) I don't know the names of them, I'm sorry (0.5) they used to be in BC or she would always travel out to BC to do these choral conducting
 136 C9: Oh, really?
 137 R: symposiums: with (0.5) John Washburn yes that's it, and um: (1.3) and I know she learned a lot.
 138 C9: Oh okay.
 139 R: and I just can't remember the name of the symposium, but I know um: (.) but it's good to know about. The ones I was mentioning were more instrumentally focused, but it's nice to get the choral touch
 140 C9: Mm hmm.
 141 R: because that's very expressive.
 142 C9: No, it was (.) it was quite a good opportunity
 143 R: Mm hmm.
 144 C9: you know.
 145 R: And does he conduct on campus here, or I don't think...
 146 C9: No.
 147 R: No?
 148 C9: No I don't think he doesn't do much around here
 149 R: Yeah.
 150 C9: but...
 151 R: But no (.) that's cool I mean to work with that group is amazing. [Laughter]
 152 C9: Yeah.
 153 R: Oh good, in my field we talk about this notion of um: (.) tracing a sound=
 154 C9: =Okay.
 155 R: and (.) um: (.) do you feel that these emblematic movements are done with the intention of tracing or drawing the soundscape?
 156 C9: (4.5) I don't understand, sorry.

157 R: That's okay (.) what I was thinking about (.) these like (.) the punch and the dab and these glides
158 C9: Mm hmm.
159 R: that we sort of worked on in my study, do you think they outline the=

160 C9: =Oh the...
161 R: the expression of the sound like the musical contour?
162 C9: Oh, definitely (0.5) definitely (.) yeah.
163 R: Yeah (0.5) yeah me too, I think they're really, they really do. Um: (.) and then in your, in your um: (.) had you ever conducted any of the four marches that we used in this study, the *Washington Grays March*, *Barnum and Bailey's Favorite*, *March Opus 99* or the *Florentiner March*?
164 C9: No, not that I recall.
165 R: Yeah.
166 C9: I don't think so.
167 R: But you had some familiarity with
168 C9: Yeah
169 R: the marches
170 C9: for sure.
171 R: that you kind of recognized them?=
172 C9: =Definitely, definitely I've heard them before, so...
173 R: Yeah, good (.) you know they're kind of um: (.) standard icons in the wind band=
174 C9: =Right.
175 R: repertoire that um: (.) that get picked up by a lot of marching bands and other wind bands and concert bands, but um: (.) but good. And what um: (.) factors influenced your decision to take part in this study?
176 C9: Uh, just my:: overall interest in conducting, I saw the (.) you know, motion capture lab
177 R: Mm hmm.
178 C9: and you know dealing with the technology it just (.) you know (.) I knew I would learn (.) I would definitely have learned a lot from the whole process, uh (.) I (2.0) uh (.) and I knew there was a chance to go in front of the ensemble.

179 R: Yeah.
180 C9: That's one thing that I really want more experience doing
181 R: Mm hmm.
182 C9: so that helped, and then learning, you know (.) gestures (.) and seeing other gestures (.) and seeing the differences or the commonalities between them and what people think.

183 R: Mm: hmm: (.) oh yeah.
184 C9: So, yeah (0.5) and it was just the whole thing was good, uh (.) a good learning experience.
185 R: Oh great (0.3) and um: (.) the-the gestures um:: (.) which one was the easiest for you to incorporate into your conducting? We had this sort of press gesture, the glides, and the dabs, and the punches, which one did you feel was the easiest to put in the mix?
186 C9: (1.0) Uh I liked the (.) I think (.) the punch
187 R: Mm:..
188 C9: was the easiest one, it just see::med (.) seemed like it was the easiest to implement (0.3) uh::...
189 R: To execute easily?
190 C9: Yeah I mean get across to the performers.
191 R: Yeah (1.0) oh, good (0.3) and um:: (.) was there one that you felt was more challenging?
192 C2: Probably the (3.5) the glide (.) I think.
193 R: Mm hmm.
194 C9: I think that was a little bit more challenging.
195 R: Yeah, it's hard with those (.) sort of glides, often we use them with crescendos and diminuendos, but to keep um: (.) them smooth and not have any pulse.
196 C9: Yeah yeah yeah (.) exactly.
197 R: Yeah, yeah, definitely (0.5) good. And which um: (.) which gestures are the most, um: (.) um:: do you find that the little dab gesture is kind of easy to put in the mix? The light, it's lighter than the punch.
198 C9: Than the punch?
199 R: The punch is stronger, right (.) than the da::b?
200 C9: But it's still:: (.) yeah for sure.

201 R: Yeah in the same kind of...

202 C9: Like it's easier, to put in

203 R: Mm hmm (.) yeah, a lot of people found that as well, which is good. In um: (.) do you, uh:: there is this question I grapple with about gesture and sound, and why are some gestures good, or appropriate for a wide number of sounds?

204 C9: (5.0) Well (1.0) whereas in (.) okay, I think (3.5) well it depends what the conductor is looking for

205 R: Mm hmm.

206 C9: an::d you know, one person's gesture might be the same as another gesture, but just they're showing it more (.) or just (.) they are expressive, they say "this is what I'm going to do" and then they explain what they want.=

207 R: =Mm::.

208 C9: Then the group would kind of know, but it could be the exact same as somebody else that wants something totally different, so, I don't know if that makes sense, but

209 R: Mm hmm.

210 C9: just the way that (.) it's the interpretation of what the conductor wants.

211 R: Yeah, uh (.) and do you think then (0.5) interpretation is derived from (1.3) the sounds, or the score?

212 C9: Uh: (2.5) I would say more (.) well (.) if the conductor is just looking at the score, probably the score.

213 R: Mm::.

214 C9: And then he (.) or they (.) would be able to look through and see what type of appropriate gesture they would like to put there, and I think (0.3) yeah more (.) more on the score, before they hear what it is=

215 R: =Uh huh.

216 C9: so::....

217 R: Yeah.

218 C9: I mean after they go through the first run of it, they might totally change their mind and say, "oh, this is not what I expected"

219 R: Yeah [laughter] yeah, and that's so true, it's so true. And what are some properties or elements of sound that change frequently? So things in sound that change, that require an action or a movement to help encourage them.

220 C9: (3.8) *A *change *in *sound.

221 R: Mm hmm.

222 C9: Well dynamics, and

223 R: Mm hmm.

224 C9: and um: (.) articulations, and (.) just phrasing (.) and

225 R: Mm hmm.

226 C9: things like that, I:: (.) I'd say those are the general three that

227 R: [Laughter]

228 C9: I mean it's mostly like (.) forte pianos and-and of course articulations, you know (0.5) marcato, staccato, legato, um: (.) all sorts of differences=

229 R: =Oh yeah.

230 C9: that you want, right (0.5) that requires a movement change to reflect them.=

231 R: =For sure.

232 C9: And um: (.) yeah (.) I think and especially phrasing, that's a really big one.

233 R: Right.

234 C9: But phrasing is always (0.5) phrasing is more...

235 R: always constant, it's always happening, so [chuckle] good. Do you think some of our emblem gestures um: (.) are strongly linked or hardwired to particular sound moments? Like what I mean is, if you hear ba da da, ba da da, ba da da boo::m (.) that kind of thing in, in one march, and then you have let's say a similar thing like (.) ba da di di di , du du du du, di di di di boo::m in another march it's a similar, similar contour?=
 236 C9: =Yeah.

237 R: Would you be (0.3) do you think people are most likely to do the same type of gestures there?

238 C9: I would say yeah (.) um:: (.) maybe not the same kind of size of gesture

239 R: Mm::.

240 C9: but the same type of action

241 R: Mm hmm.

242 C9: possibly.=

243 R: =Yeah (.) yeah.

244 C9: Mm::.

245 R: Good, yeah (.) so:: similar, the size may vary

246 C9: Mm hmm.

247 R: depending on the tessitura, the range of the instrument.=

248 C9: =Like the same (0.4) like intensity could be there whether it's big and small or...

249 R: Mm hmm.

250 C9: but I think yeah, definitely.

251 R: Mm hmm. (.) that's good, I like that word intensity and I often wonder like (.) if that comes from: the acceleration and deceleration of the moveme:nt?

252 C9: Right I mean I always, yeah.

253 R: Cuz it's not a size thing.=

254 C9: =Yeah exactly (.) I always associate intensity, not with the size of anything, just you know (.) how clear you are and (.) yeah (.) just the energy is right there

255 R: Mm hmm.

256 C9: and yeah (.) so...

257 R: Yeah, good. I remember some of my lessons with Mark Hopkins (.) and he used to try and get me to get the energy to the tip of the baton.

258 C9: Hmm, oh yeah.

259 R: Or if you have the hands, it would be right out to the fingertips, right?

260 C9: Right.

261 R: And getting the energy to project (.) to where you want it to project, rather than leaking out in other areas

262 C9: Exactly.

263 R: where often it leaks out.

264 C9: Yeah it doesn't have to be big

265 R: Mm hmm (.) yeah.

266 C9: you know it's just.

267 R: Yeah exactly, yeah I know that was a big one for me too. I remember one of my first lessons, he he gave me this article about overconducting, and he was basically telling me that I'm an overconductor, and that I do everything too big, and that it's too much all the time, but he didn't come out and say that, which he should of (.) but he just said "you should take this article and read it, Wendy."

268 C9: Mm hmm.

269 R: and then of course I read it (.) and thought about it (.) and thought, okay (.) he wanted me to read this cuz he figures I'm like this.

270 C9: Alright.

271 R: Mark Hopkins helped me to find my way in an artful and professional manner, for example he wanted me to think, "perhaps I am like this," without telling me that I was, right?

272 C9: Okay.=

273 R: =He was very much like Dr. Brown in that way (.) he's very kind and respectful, and has a gentle way of bringing you around to the truth.

274 C9: That's funny, that's good.

275 R: It's funny because I've studied with some maestros at various conducting symposia and they've been very direct and brutally honest which is good because you need it at the time, but it's sometimes hard to take. *Anyway...

276 C9: Yeah.

277 R: [Laughter] When you go and do your masters, this is something to think about (0.3) what personality do you want to work with, an::d some conductors (.) uh (.) they'll give you the technique and the pattern and and help you to make it really clear and take out the bad habits

278 C9: Mm hmm.

279 R: um: (.) and give you the freedom to be expressive in your own way and other conductors just kind of just (.) you end up (.) if you study under them, perhaps you might end up looking like them.

280 C9: Oh (.) okay.

281 R: And so:

282 C9: That makes sense.=

283 R: =this is something to think about, um: (.) like with the (.) uh (.) for example, some graduate students learn the Saito conducting method, which is a very popular method and a very good method to get the acceleration and deceleration of movement.=

284 C9: =Right.

285 R: And in that Saito method (.) your pattern and clarity and everything (.) is so won:derful and it looks fantastic, um:: (.) but then you need to move away from that an:d put in some expression. So:: you don't all:: want to come out looking like (.) let's say a Saito type of conductor. I'm just using this as an example.

286 C9: Yeah, people shouldn't (0.3) shouldn't be able to detect...

287 R: Mm hmm (.) who you studied with. I am not stereotyping that particular method, because it is an extremely useful one, but surely that's something to think about, the styles that are being taught.

288 C9: Right.

289 R: Especially the way that they: show you new things, and the way that they help you to discover it for yourself

290 C9: Mm hmm.

291 R: which is very interesting because it is very much a-a craft type of art=

292 C9: =Right.

293 R: and there no:: (.) there is often no right or wrong answer and multiple ways to show the movement.

294 C9: Definitely.

295 R: So it's a, it's a very uh:: (.) interesting thing when you think about it, and I guess my advice would be:, have a private lesson with the person or persons that you're considering studying with, even if it means you have to travel to go to them.

296 C9: Right.

297 R: And then::: you'll know from your private lesson one on one (.) if it's nice communication, like with your singing.

298 C9: For sure, for sure.

299 R: If you learned a lot from them, if it was a good collaboration, if they could get to the point, all of these things you would consider when deciding who to study with (.) you almost have to kind of...

300 C9: You just have to go do it.

301 R: And then you know (.) just have a lesson, pay him one hundred dollars an hour (.) or whatever his fee is and have a lesson, and then in the very least if he doesn't end up taking you as his graduate student, you've also gained this certain sense of learning from him or her an:::d when you do this with multiple people you'll get multiple perspectives.

302 C9: Yeah.

303 R: So::

304 C9: And that would be::...

305 R: I mean and it's kind of a little more tricky, because you have to travel around

306 C9: Right.

307 R: to find them and to see if they'll take you on for a lesson.

308 C9: It's almost like taking a risk.

309 R: Yeah, putting yourself out there.

310 C9: Yeah.

311 R: And saying like, "I am interested, an:::d would you have a lesson with me::: (.) and I'm working on this piece, and could we...?" like you did with your other thing.

312 C9: Yeah.

313 R: Exactly. And then (.) um:: (.) you learn a lot in the process, but you also get to know some people, of course you could go on advice of other people who have worked with others

314 C9: That's true.

315 R: and to see if they're great, an:::d...

316 C9: Definitely.

317 R: Yeah.

318 C9: It's good.

319 R: Yeah, yeah (.) good. Um: (.) do you think of our gestures as having um: (.) these three dimensions: the back to front, which would be the x dimension in my study, the right to left which is the y dimension, and the up and down which is the z dimension? Do you think about your movements as having a three dimensional quality?

320 C9: Yeah, um: (1.0) I have thought of that and the directions that they go, but I've never actually really focused on

321 R: Mm hmm.=

322 C9: =oh I need to go forward or further to the side or, or noticed the movements that are taken with dynamics and certain things

323 R: Mm hmm.=

324 C9: = but (.) I mean, it's never something I've focused on.

325 R: Yeah yeah, and I know um: (.) often this kinesthesia, or this awareness of one's motion while you're in motion, is a very hard thing to do, to get (0.5) because, uh: (.) often we don't realize the things that we're doing

326 C9: Mm hmm.

327 R: until we watch a video tape feedback of ourselves and go "Oh, I'm doing that? Oh." [Laughter] or what not so:::...

328 C9: You know where I'm for that.

329 R: Yeah, that's another thing I learned from my mentors is um: (.) to video tape everything, and I did.

330 C9: That's good.

331 R: It's good to videotape yourself when you get you own group, and to do it often, and-and um:::...

332 C9: Just analyze yourself.

333 R: Yeah (.) and I'd watch the pros do it too, like I watched Jeremy Brown video tape himself, and Mark Hopkins taped himself a lot, and-and (.) also then (.) if you do it for your concerts, or when you start concerting more, then you have this whole collection of pieces you've done

334 C9: Yeah.
 335 R: and things you've done.
 336 C9: And you can always look back and...
 337 R: Yeah:: you notice a big difference
 338 C9: Exactly.
 339 R: you know, from year to year
 340 C9: Yeah.
 341 R: and changes, an::d growth.
 342 C9: For sure (.) for sure.
 343 R: Um: (.) I'll just say a couple examples (.) and you tell me how you might move, or show me how you might move. If the sound moment is rising in pitch, what action might you do?
 344 C9: Rising in pitch?
 345 R: Mm hmm.
 346 C9: Um:: (5.0) I don't know if I'd go up.
 347 R: Hmm: (.) out and up?
 348 C9: Up.
 349 R: Slightly.
 350 C9: [Demonstrates a gesture] Yeah.
 351 R: [Repeats the same gesture given by C9] More out?
 352 C9: Like more out than up
 353 R: Yeah.
 354 C9: but both.
 355 R: Mm hmm (.) that's good. And the opposite, if the sound moment is falling in pitch, what might you do
 356 C9: Uh:: [Demonstrates a gesture]
 357 R: Kinda drawing back?
 358 C9: Yeah, kind of bringing it back (.) toward the body, and then also show some kind of downward motion
 359 R: Mm:: (.) mm hmm.=
 360 C9: =because I don't want to, I wouldn't want to confuse it with a dynamic thing (.) either
 361 R: Mm hmm (.) yeah and I think in the musical situation because I didn't really preface much about the musical situation, but they (.) they would understand that I think.
 362 C9: Okay.
 363 R: Yeah, yeah, depending on exactly the moment, but (0.3) um: (.) good, and if the sound moment is light and sudden (.) like the ba da deet (1.5) ba da deet (.) what might you do?
 364 C9: Oh, with the space in between?
 365 R: Yeah.
 366 C9: Or was that on:e?
 367 R: Yeah kind of like the one that we had in the march there, um: (.) where we just had these little ba da deets, ba da dee [laughter] just a real something small and subtle, and it's not very long, it's kind of short (.) but...
 368 C9: Well, I'd probably (2.5) do the first one, and then still keep something going (.) and then...=
 369 R: =Show the second one?
 370 C9: show the second one.
 371 R: Yeah.
 372 C9: I would never stop, in between I don't think, depending on what the music is
 373 R: Mm hmm.
 374 C9: to keep something going in the space, and then...
 375 R: Mm::: yeah, that's very cute, that's a neat thing to experiment with, when to stop movement (.) and then:: do it again, and when to keep the movement going.
 376 C9: Or to keep the pulse.
 377 R: Right (.) yeah, and then the cool part is like the:: right hand can always keep going, and the left hand can do whatever you want, whenever you want
 378 C9: Right.
 379 R: and that's kind of like I think a key thing, and that definitely should stop sometimes and start sometimes, like what you're talking about.
 380 C9: Definitely.
 381 R: Yeah, good (.) um: (.) good. If the sound moment is strong and sudden, like a bass drum boom, or the cymbal crash:: (1.0) how might you move? (3.0) Or what are some ideas that come to mind?
 382 C9: (3.0) Just more sudden, more sudden movement (.) um: (1.5) I'd do like the punch gesture
 383 R: Mm hmm.

384 C9: maybe, maybe not, depending on
what, what, if it's a sharp attack=

385 R: =Mm hmm.

386 C9: or like a-a more sustained boom:: or...

387 R: Mm hmm.

388 C9: something.

389 R: Mm hmm: (.) well that's a good thing you brought up (.) the longevity of the sound, because percussion instruments um: (.) have longevity as well.

390 C9: Right.

391 R: Right (0.3) especially the cymbal crash that keeps ringing.

392 C9: Exactly and

393 R: Yeah.

394 C9: if you wanted to just go (.) if you wanted it to ring or just pshhh and stop.

395 R: Ring and then dampen?

396 C9: Yeah.

397 R: [Laughter] Yeah.

398 C9: Yeah.

399 R: Yeah definitely because

400 C9: Oh:: and the bass drum too, like sometimes it just (.) boom and it just resonates, or just think of the sharp (.) sharp

401 R: Mm hmm.

402 C9: ping or something.

403 R: Mm hmm.

404 C9: So::...

405 R: Yeah, I think that's really important to consider.

406 C9: And also (.) that's yeah, exactly (0.3) and it's easy, I think it would be you know (.) easy to show:: whether you want it to be more sustain::ned

407 R: Yeah.

408 C9: or not, right?

409 R: Yeah and I think when you reflect that to the percussionists, they really (.) really respect that.

410 C9: Right they can see.

411 R: Because they see what you want.

412 C9: Right (.) they see

413 R: Mm hmm.

414 C9: that action of [demonstrates a sustained gesture] or just like [demonstrates a similar sustained gesture held not quite as long] and they can figure out to still keep it going rather than stopping the sound too soon.

415 R: Yes.

416 C9: Yup.

417 R: Yeah (.) and a lot of times, we forget about them at the back (0.5) um:: (.) for whatever reason: not in the big moments let's say, but we don't let them know the duration of the sound=

418 C9: =Right.

419 R: so (0.3) and they often wonder, or they might have to put up their hand and ask the conductor (0.3) "do you want that dampened right away, or do you want that to ring through," right?

420 C9: For sure.

421 R: Sometimes it's not notated in the music, right?

422 C9: Definitely.

423 R: So these are good things to know in your gesture that you can manipulate.

424 C9: That's one thing (.) that's one of the things I think that was helpful, because I mean (.) I've played percussion (.) and I know what happens

425 R: Yeah. [Laughter]

426 C9: in the percussion section, and it's always chaotic, sometimes with parts

427 R: Oh (.) yeah. [Chuckle]

428 C9: there's so much going on and and so (.) knowing things like that, and being aware of it before it even happens, and say "oh, percussion make sure to do this in this bar" because you know, you'll be doing this as well=

429 R: =Mm hmm.

430 C9: something just to, it's easy cuz I've done it before and I have a little bit of background on what should be done.

431 R: Mm hmm.
 432 C9: And it's something that I hope would not, I would not lose awareness of
 433 R: Mm: hmm.
 434 C9: getting in front of a group
 435 R: No.
 436 C9: but (.) that I would have them
 focused.
 437 R: and then (.) I'm sure (.) actually, I'm sure you would with your background and experience in knowing that, then you wouldn't, you
 wouldn't lose sight of that.
 438 C9: Mm hmm.
 439 R: That's one thing that is a part of our craft, a conductor should be passionate for the whole percussion area.
 440 C9: Right.
 441 R: Right a conductor should never forget about these nuances and knowing what to tell them and
 442 C9: Exactly.
 443 R: a:nd so that's great (.) goo:d. For me,
 I was wondering about, um: (.) shape.
 Do these emblematic moments have a
 certain shape to them?
 444 C9: Yeah, it definitely, um: (.) depending on which ones you're talking about.
 445 R: Mm hmm (.) yeah.
 446 C9: Well if it's more legato, it's going to have a different shape, than one of the attacked ones.
 447 R: Mm hmm more rounded, perhaps?
 448 C9: Yeah more rounded [sings] deedle dee dee, deedle dee dee.
 449 R: Yeah.
 450 C9: Right?
 451 R: Yeah.
 452 C9: Things like that (.) um:: (.) yeah (0.3) definitely different shapes for all of them.
 453 R: Mm hmm (.) yeah. I always ask that question because often people don't think about using the shapes to their advantage, cuz like
 circles are really (.) good to use, because you can really adjust the deceleration and acceleration and when moving inside of the shape=
 454 C9: Definitely.
 455 R: which really shows a weight to it then.
 456 C9: Right.
 457 R: So:: that's just (0.5) I always ask that question (.) because I think it's (.) um: (.) something that can be manipulated [Chuckle]
 458 C9: Mm hmm.=
 459 R: =in movement.
 460 C9: Definitely.
 461 R: So (.) um: (.) this (0.5) I've really been grappling with this idea, a term called salience. Salience, in my study is (.) when:: a gesture or
 a sound, stands out relative to its neighbor gestures or sounds:: So:: for example um:: (.) a fortepiano is a good example of one
 because the soundscape is very soft, and then suddenly forte, and then suddenly soft again. So the neighbor, the sound is salient
 because of what preceded it and what came after, is:: is um: (.) different, than the moment
 462 C9: Oh yeah.
 463 R: that occurred.
 464 C9: Right (.) right.
 465 R: So how do you think that a conductor uses salience to his or her advantage?
 466 C9: Mm:: (4.0) well::...
 467 R: It could be salience in your movement as well.
 468 C9: Right (5.0) well to create the (.) kind of contrast and well um: (.) I don't (.) I just like, do you mean like why you would go from (3.0) I
 don't, I don't understand.
 469 R: Yes, you're on the right track I can tell from what you're saying to me.
 470 C9: Just uh (.) well (.) to go back to something after a certain moment and be able to have that consistency
 471 R: Mm hmm.
 472 C9: if that makes sense
 like you want=
 473 R: =Yeah.
 474 C9: the same thing here as here, but what's happening here is way different
 475 R: Yes.
 476 C9: and so the group could know, oh, he wants this again
 after this event [demonstrates a fortepiano gesture].
 477 R: That's right.
 478 C9: Instead of doing something:: here, have a big event
 479 R: Yeah.

480 C9: and then do something kind o:f (.) unclear.

481 R: Right.

482 C9: Just to have a (.) this is A [demonstrates stillness] this is B [demonstrates a fortepiano gesture]

483 R: Yeah.

484 C9: and this is A again. [Demonstrates stillness again]

485 R: [Laughter] Yeah (.) that's right.

486 C9: More or less, right?

487 R: Yeah that's right. And I like what you said about (.) it can't be a big event, a big event and another unclear event

488 C9: Well yeah.=

489 R: =because if everything is a big event then nothing, then the big event doesn't mean anything.

490 C9: Oh yeah, the contrast yeah (.) exactly.

491 R: Right so when you said contrast (.) that was perfect. That A (.) and A are something equal, and B is something very different, and so (.) A has to equal A on both sides (.) and B has to be different.

492 C9: Right, right (.) it's always that going back to something else

493 R: Mm hmm.

494 C9: before you change something else

495 R: Mm hmm.

496 C9: that's what I think (.) anyway.

497 R: Yeah no (.) I think that's exactly what conductors do. So (.) um: (.) do you think that: um (.) if the sound is more sustained, and has notes that ascend up to a light note (.) how would you move then?

498 C9: Well I think (.) if it's ascending and going kinda quieter

499 R: Mm hmm (.) yeah, it's kind of ascending and it might go to a light last note, but yeah it could be getting softer.

500 C9: I would say (.) um:: (.) move up fast, and then kind of slow at the top

501 R: Mm::

502 C9: and then have like the last note or whatever be=

503 R: =A little dab?

504 C9: a slower (.) kind of articulation, or maybe it should be the other way around? (0.5) No (.) just like faster, and then kind of slow down, and I mean it kind of shows that you're growing

505 R: Yes.

506 C9: or that the dynamic is loud, and then soft, and then

507 R: Mm hmm, yeah.=

508 C9: =soft at the end, but still going up.

509 R: Good (.) no, that's perfect (0.3) and I think you thought about all the parts of that equation

510 C9: Yeah.

511 R: in your answer so I appreciate that.

512 C9: [Laughter]

513 R: But it's good because it reflects that you can really dissect a movement, and think (.) think it through and where it might go.

514 C9: It's always important, yeah (.) to think of a couple of key things, like what you just said about (.) if it's a moving line up, well you're going to have that, while if it's a dynamic change (.) well then (.) your speed has to change.

515 R: Mm hmm.

516 C9: I mean it's just those types of things I put together

517 R: Yeah.

518 C9: you know (.) the equation.

519 R: Yeah, no it's good. You should (0.3) we should make some kind of formula here.

520 C9: Right.

521 R: [Laughter] I know I know it's true actually.

522 C9: It's like what do you have (0.5) and then this is what you need to do.

523 R: Yeah [giggle] that's right. It's good (.) and I think that these kind of formulaic things that you're thinking about and explaining to me, that happens in the score study, when you have the score, or perhaps (.) when you have the sound in your mind that you've gained from rehearsal (.) experience (.) from (.) um: (.) you know playing the part on the piano, singing the part with your voice, or also just from recordings that you've found, so whatever way I::, I think Craig Kirchhoff said to me one time, he's like, "I'm not against using recordings, whatever way you need to input your computer, do so

524 C9: Right.

525 R: get this in your mind, but then think about your interpretation of it, so which still happens from your score study, and also thinking through the little formula that you were describing to me=

526 C9: Right.

527 R: okay, these are the elements, this is what's happening here, what do I want to show? How do I want it to sound?

528 C9: This generally is what I need to do

529 R: Mm hmm.
530 C9: and think, how am I going to show that?
531 R: Yeah: (.) and I don't think there is anything wrong in (.) making a plan.
532 C9: Right.
533 R: Then you can always adjust it on the fly, but you have a very clear idea in your mind of what you want the sound to be.
534 C9: Mm hmm.
535 R: And that for me is first.
536 C9: If you go in: blindly, not knowing anything, then you're wasting people, like you're (.) wasting people's time
537 R: Yeah.
538 C9: because you don't know what you want and...=
539 R: =Yeah.
540 C9: you know (.) yeah exactly.
541 R: Yeah which I mean (.) you have the freedom to change on the podium
542 C9: Mm hmm.
543 R: cha:nge something based on what you hear, but it's good to have a plan, and people really respect that, right?
544 C9: Exactly.
545 R: And they also appreciate the guidance that you're giving and the leadership. I think when people say leadership it's obviously linked to your posture, and linked to your fa:::ce, and linked to:: the eye communication.
546 C9: That was what (0.5) yeah...
547 R: Yeah.
548 C9: That's what we learned when we did the ensemble stuff. Yeah, when you told me I need to show a little bit more in the face, and the eye contact (.) yeah.
549 R: Yeah, right
550 C9: It definitely effects a group, because when you're up there, you probably don't realize, you don't remember what it's like to be in the group
551 R: Mm hmm, oh yeah (0.5)
552 C9: and you need to
553 R: yeah.
554 C9: it's just something you need to remember, oh (.) this is what (.) you know, this is what I would like to be done to me
555 R: Mm hmm:::
556 C9: so then you kinda have to think that way.
557 R: Yeah, putting the shoe on the other foot and...
558 C9: Yeah.
559 R: And yeah it doesn't, I mean, it's interesting because you'll never please, in my experience with working with ensembles, mostly concert bands, you'll never please all of the people all of the time, you won't (0.5) but if you keep in mind those things that as a musician you really appreciate, um: (.) and then you try to do them:
560 C9: Exactly.
561 R: and then they:, it does translate, I think.
562 C9: Yeah, for sure there's so many things, you know (.) whether it's just like, the eye contact, or a smile, or like a breath, a (.) it's
563 R: Yeah.=
564 C9: =as long as you show that um: (.) that you're noticing them
565 R: Mm hmm.
566 C9: rather than just kind of=
567 R: =Doing your thing. [Laughter]
568 C9: Yeah (.) exactly.
569 R: Yeah it...
570 C9: It's a combination of being able to just do what you need to do
571 R: Mm hmm.
572 C9: and (.) communicate, right?
573 R: Mm hmm.
574 C9: There's a part where you just have to keep going
575 R: Mm hmm.
576 C9: but at the same time you have to, portray it, so:..
577 R: Yeah (0.5) and people they (.) I think people generally want to make a connection with you.
578 C9: Mm hmm.
579 R: I like what you said, you can connect to your players through the breath with the singers, and connect through the eyes, and connect with a smile
580 C9: Right.=

581 R: =and connect, um, um:: in many ways, so that's good that you realize that this kind of (.) it's a (.) it's a movement art, it's a non-verbal art, but so much of it is::

582 C9: Is through...

583 R: yeah.

584 C9: Non-verbal communication is all of it.

585 R: It is, yeah, it is. [Laughter]

586 C9: There was conducting I can't remember when it was or who it was, but they just conducted something without even using their arms=

587 R: =Mm hmm.

588 C9: they did something totally with their eyes.

589 R: Yeah, and head, and breath, and...

590 C9: Yeah, it was something, and we did a pretty decent job at playing it

591 R: Yeah.

592 C9: because it was such good communication and we got the tempo from the breath

593 R: Mm hmm.

594 C9: and just the way that he (.) you know if it was something

595 R: Serious.

596 C9: particular he would, you know (.) the eyes would change, yeah (.) I remember that.

597 R: Yeah (.) that's so goo::d because it just (.) it just really changes things up, you know?

598 C9: Yeah.

599 R: And makes you realize that a lot of it isn't (.) your arms, they kind of (.) well, you don't even need your arms sometimes. [Laughter]

600 C9: Yeah, it's like eighty percent of it is here [points out the facial area] and then the rest is just for uh:

601 R: Yeah.

602 C9: extra stability.

603 R: Yeah, security and a little direction maybe.

604 C9: Yeah.

605 R: Mm hmm (.) I know, that's always such a funny thing, I know in various conducting symposia that's often something they do, is ask you not to conduct and just use your face, and (.) and I know why they do it, because it really helps people a lot and um:::=

606 C9: =Well I:: (.) and I think if you don't use your face or any kind of gesture, it's just kind of a flat (.) sounding group. Like the group might be technically capable

607 R: Yeah.

608 C9: ya know, but at the same time if you don't have any kind o:f (.) passion or emotion put into it of some kind, you just don't get that across in the sound, right?

609 R: Mm hmm, absolutely. Yeah, and I mean it was funny, I think it was with another conductor, we were (.) laughing about how you can overdo like the gesture and the face, is super powerful, otherwise it's over the top, so it's weird that you have to sort of choo::se how and when, and it'll come naturally later, but I think when you learn it (.) you almost have to like (2.0) I don't know if pre-plan is the right word, but think about times when you put it in the mix.

610 C9: Right.

611 R: Yeah.

612 C9: And I think it's more like (.) if you do it all the time, yeah it has no effect.

613 R: Mm hmm.

614 C9: But it's almost like (.) when you don't do it (.) and then when you do:: do something (.) you know, people really notice it (.) because it's a big difference between if you know you're just going along, and then suddenly you have

615 R: Yeah.

616 C9: this kind of emotion then it's=

617 R: =Huge.

618 C9: That's when it begins to count, but if you're always kinda blah (.) then you never (.) something (.) usually never happens but I mean...

619 R: Yeah.

620 C9: I dunno it's probably different with everyone and it's just a matter o:f (.) who your group is

621 R: Mm hmm, but I think like (.) um:: (.) what you're describing to me is another salience, another version of salience, of using the face in a salient way.

622 C9: Oh yeah. Your gesture or you're uh...=

623 R: =Facial contrast.

624 C9: Yeah.

625 R: Mm hmm yeah (.) good (.) awesome. So I'll ask you a couple questions about these accuracy tests

626 C9: Sure.

627 R: and get your ideas, what you felt about each of the three parts.

628 C9: Mm hmm.

629 R: And I'll just go over which part, and then ask you a thought about it.

630 C9: Sure.

631 R: So in Part One, you had to listen to three audios, and watch one video; or watch one video, and then listen to three audios. Um: (.) and select the sound number that best fit the gesture. Which way did you prefer:: (.) to have the three sounds and then the one video, or to have the one video and then hear the three sounds?

632 C9: Um:: (.) I would say (3.0) just trying to remember.

633 R: Yeah. [Laughter]

634 C9: I must prefer the s::ound (.) be::fo:re (.) because I would hear them, and then while hearing them I would think of what I would do=

635 R: =To the, to each sound.

636 C9: to each sound.

637 R: Mm hmm.

638 C9: And then seeing the video, usually I think I can pick out which one is most similar to what I would do

639 R: Mm hmm mm hmm.

640 C9: Mm:: (.) but then at the same time the other one has its advantages too

641 R: Right.

642 C9: because you can predict what the sound is by seeing that, and then...=

643 R: =Try to discriminate from the one movement.

644 C9: I think the sound would be easier first.

645 R: Mm hmm.

646 C9: I think it was just cuz (.) I can just easily picture what I was going to do (.) or what I did do in the lab=

647 R: =Yeah.

648 C9: and then associate it with what the video was. I think that was (.) might have been the easier one.

649 R: Yeah (.) goo:d. (.) and Part Two was, you watched three videos and then heard one audio, or you heard one audio and watched three videos (0.5) was that similar, you wanted to hear the sound first?

650 C9: Actually, it probably was the other way around, the video first, because you have three:: (.) different ones, and you would be able to (.) I think (.) upon looking at them, you can see the differences and then::

651 R: Mm::

652 C9: hearing the sound once, oh you could easily associate it, because you just saw three of something, rather than listening to one (.) and then watching three, you might forget what the sound was.

653 R: Yeah.

654 C9: And by the third video (.) you think uh::, but I think (.) watching them first, was maybe a bit easier.

655 R: Yeah, discriminate first between the three movements first, kinda look at the differences between them and then hear the sound.=

656 C9: =And then (.) what you could do watching them, you could predict which sound it might be

657 R: Right.

658 C9: based on how well they did it, and then (.) and then (.) if it was the one that you thought it was=

659 R: =Yeah.

660 C9: then, oh there it is.

661 R: O:kay (.) yea::h good point.

662 C9: Kind of um: (.) what's that? (.) um::...

663 R: Oh, um::...

664 C9: What's the word I'm looking for where you eliminate?

665 R: Yeah.

666 C9: Eliminate.

667 R: Yeah.

668 C9: Eliminate

669 R: Yes.

670 C9: Elimination.

671 R: Yeah (.) yeah, process of elimination.

672 C9: Yeah, that's the one.

673 R: Yeah.

674 C9: Yeah (.) so you could do it right away.

675 R: Yeah (.) good, and then in Part Three, you were given um: (.) um: (.) three audio/video gestures, and you had to select the one that made the most audio/visual sense together.

676 C9: Oh yeah, right.
677 R: What did you think about that?
678 C9: It was, that one was really (.) helpful (.) I mean especially doing the ones before, because then you could definitely identify, oh this one doesn't match at all
679 R: Mm hmm.
680 C9: this one is close, and this one might be closer.
681 R: Mm:::
682 C9: And some of them are tricky because two of them could have been either/or
683 R: Yeah.
684 C9: but it was (.) overall (.) you could definitely get one that totally didn't work and then for the most part two (.) and (.) just seeing (.) the:: (.) for the ones that I noticed were correct
685 R: Mm hmm.
686 C9: seeing what the person did, and how they expressed that gesture just because they knew it was the one that matched, and how I did it differently
687 R: Mm hmm.
688 C9: or how I did the same.
689 R: You were making a connection to::: how you performed it.
690 C9: Yeah, right.
691 R: U:::m (.) and also making a connection to um: (.) having done Part One and Two, you kind of had in your:: mind, or kind of a set
692 C9: Exactly.=
693 R: =pairing, perhaps?
694 C9: Yeah (0.3) yeah (.) yeah- yeah, by the end of One and Two you kind of eliminated and matched up the ones that probably go together
695 R: Mm hmm.
696 C9: and then by the time the Third one came around you would say, "oh no, that one (.) and then this one, yes."
697 R: Yeah, clearly those didn't go with this one and then you could find it (0.3) goo::d.
698 C9: Yeah.
699 R: Excellent cool (.) thanks for your thoughts on that.
700 C9: Mm hmm.
701 R: Yeah (.) and uh::: we're nearing the sort of the latter half, so, I appreciate your thoughts and ideas.
702 C9: Yeah, for sure.
703 R: So there is uh, this um:: (.) this funny paradox, and it happens two ways, so I'd like to get your views on both of these scenarios. (0.5) And one may be more common in the choral world, and perhaps one is more common in the instrumental world, or perhaps you've just seen, or experienced one, but maybe not the other.
704 C9: Oh, for sure.
705 R: But anyway, these are two occurrences that I see. Um:: (.) one is tha:t (.) the gestural landscape in a conductor is so beautiful and expressive with affective qualities, showing the musical phrasing and such, and yet the ensemble plays or sings very blandly, without much shape (0.3) and then, the opposite, where the ensemble's playing so:: beautifully with phrasing::, and amplitude changes and timing adjustments, but the conductor is very bland and boring and there is little musical phrasing going on in his gestures, so these are the two scenarios.
706 C9: Okay.
707 R: So, um:: (.) why do you think these two occur::, and what (.) sort of factors maybe contribute to these occurrences?:=
708 C9: =Well for the first one, if the:: conductor's too overly emotional, it's kind of what we said before, there's no difference
709 R: Mm hmm.=
710 C9: =and the ensemble may be just used to that, an:d since they're not doing anything:: in any contrasting way, the ensemble doesn't care you know, if someone is really::
711 R: Mm hmm.
712 C9: emotional with gestures, and then suddenly did something, you know, out of their (.) out of their realm or ordinary then you know (.) the ensemble would probably, you know (.) wonder what's happening, and then they would, then there would be a change.
713 R: Mm hmm.
714 C9: Where it's like, if it's (.) constant all of (.) if they're constantly emotional where it's kind of (.) it's just bland in its own way
715 R: Mm hmm.=
716 C9: =because, because, there's (.) no variance.
717 R: Mm hmm (.) absolutely.
718 C9: and then the other one, I guess, (.) um::: (3.0) it could be because the ensemble is (.) I mean I don't know for sure, but
719 R: Mm hmm.=

720 C9: =maybe that if they're really emotional performing the music, maybe they're a chamber group and they're good at playing in a chamber situation, and the conductor doesn't really need to be there?

721 R: Yeah.

722 C9 & R: Yeah.

723 C9: Or (1.0) they've kind of given up on the fact that he's going to show any emotion

724 R: [Chuckle] Yeah. [Laughter]

725 C9: and they just try to do it themselves:

726 R: Right, yeah.

727 C9: if that makes any sense?

728 R: No, that makes sense, absolutely.

729 C9: Yeah, if they just kind of, you know (.) under the table agree, you know (.) we should just

730 R: Yeah, play expressively. [Laughter]

731 C9: because he's not going to do anything, or...

732 R: Yeah.

733 C9: you know, or maybe, it could be that kind of thing, or (.) I don't really know what else.=

734 R: No, that's good, and you brought up the, the um:: (.) like (.) the level of the ensemble (0.3) too.

735 C9: Right.

736 R: So (.) I think that definitely plays a part and perhaps the training of the conductor, or his level as well

737 C9: Right.

738 R: would play a part (.) into these answers too.

739 C9: Yeah.

740 R: How much training he has to be able to show that, and I guess there's also the rehearsal versus the concert situation. If the conductor in rehearsal has sort of trained them up (.) to being able to play like that in:: concert, it doesn't feel like he needs to show much, because they're going to do it.

741 C9: Right (.) right.

742 R: And then, that's an interesting side of the coin, or perhaps...

743 C9: Or, yeah, sorry I didn't, yeah I guess it could be (.) that the conductor would know that they would do it anyway

744 R: Mm hmm.

745 C9: and so he doesn't, they don't need to do anything.

746 R: Mm hmm.

747 C9: Yeah.

748 R: Yeah (.) and I guess like you said, if it's a more advanced ensemble, the players could have this pact by saying, "we are going to play beautifully and expressively even if it's not (.) you know (.) shown in the gesture in front of us, this is our plan."

749 C9: Mm hmm.

750 R: And (.) yeah, that's the beauty (.) I suppose of having so many rehearsals and then a concert, because you get to put (.) as conductor you put into play your pla::n and make sure the musicians are doing it

751 C9: Right.=

752 R: =and, but:: uh (.) I think even (.) like (.) this idea applies to young people, young musicians, they have to be taught the meaning behind our expressive gestures, to know (.) that this means to play like that.

753 C9: Right.

754 R: For example, if I move this way [demonstrates a crescendo gesture] I want the sound to do this, so they have to be taught the meaning behind it, an::d because I don't think our expressive musical phrasing gestures are lost on young people, they just have to be taught what that means.

755 C9: That makes sense.

756 R: When I do this, when I show this, you need to play this, and so (.) because a lot of people think, well (.) if I do that (.) I'm just wasting it on them, they're not getting it anyway

757 C9: Definitely.

758 R: but I think they want to get it, they just need to be taught what it means.

759 C9: Right.

760 R: And the more advanced the musicians become, often they get to work with more (.) probably more professional or:: more trained conductors (.) that do show some things, and so we (.) I:: think we end up learning a lot as we go, because perhaps the conductor's level is also um:: (.) oh (0.3) more (.) more, I guess, better (.) better able to handle that.

761 C9: Right, sure.

762 R: [Laughter] But it's (0.5) it's always a challenge, for uh:: (.) young teachers to try:: to put that expression into their conducting, so that their young musicians are getting to put these phrasings in as well.

763 C9: Right away (.) yeah.

764 R: And often I think that, um: (.) teachers are really good, like (.) educators are really good at describing, and saying what they want (.) the phrase to be, but not so good at showing it.=

765 C9: =Not necessarily good at showing it, yeah.

766 R: Yeah (.) or maybe they need to be encouraged to show more.

767 C9: It comes with the practice, I guess.

768 R: Mm hmm, absolutely.

769 C9: Which is probably the time that teachers (.) don't have a lot of

770 R: Yeah, you'd think...

771 C9: once they get in there.

772 R: Yeah, they think, I stop the whole ensemble, I say my piece, and then I start it again, but it's a time saving measure to show: on the fly

773 C9: Oh, yeah (.) right.

774 R: and (0.3) then not to have to stop and start.

775 C9: Mm hmm.

776 R: And well, I mean (.) in the (0.3) when you work with more advanced groups, you can, um: (.) you know (.) you can get away with not having to stop and start as much perhaps=

777 C9: =Right.

778 R: but (.) uh (.) anyway, there's a balance there.

779 C9: For sure, yeah.

780 R: Um: (.) good. (.) and: um: (.) I think uh: (.) do you feel that coming into the motion capture lab and participating in this study has changed the way you think about your own movements and the way you listen to key sound moments, whether they're found in marches or choral pieces, or whatever?

781 C9: I definitely, uh: (.) it definitely helped. Because (0.3) well, just (.) seeing (.) the subtle motions with the sensors and everything

782 R: Mm hmm.

783 C9: It's something that you really (.) like we were saying earlier, it's something we're not aware of (.) and then (.) when you see that it brings the awareness, and just now (.) after doing that, and kind of being in the middle with all the cameras

784 R: Yeah. [Laughter]

785 C9: It's like your being watched.

786 R: Yeah.

787 C9: So if you kind of think about that when you're conducting

788 R: Mm hmm

789 C9: it's like, it's something I'll never forget, like (.) just these red lights=

790 R: =[Laughter]

791 C9: but it's something that when I get in front of a group or something, I will remember that (0.3) and remember what (.) the motion result looked like, and you know what (.) you know would be more clear, or what was I doing that kinda looked wrong or kinda looked you know (.) unreadable (.) or...

792 R: Mm hmm mm hmm.

793 C9: So just things like that definitely helped, being put on the spot and doing (0.3) these things with not having any familiarity with them.

794 R: Yeah.

795 C9: Yeah.

796 R: Yeah it's good (.) and I know the randomization was weird, um: (.) and that the sound was supposed to generate the movement, imagination, and um: (.) and then randomizing it messes it all up

797 C9: Mm hmm.

798 R: on you, you can't (.) it's not predictable, the order of the sounds but um:....

799 C9: Okay that's how, yeah, it just helps, it helped me on how fast I reacted to something because you hear the first second of it, and then jump right in to the new gesture whereas, like if one comes and you just kind of, if you're not ready for anything

800 R: Mm hmm.=

801 C9: =then you kind of passed (.) you miss it, but you have to be ready for any of them

802 R: Mm hmm.

803 C9: that's what I felt, anyway.

804 R: Yeah, and do you think these moments that (0.3) do you think that's kind of like (.) what it is in the music when we conduct a piece that we have elements of spontaneity (.) like what you were describing and then elements of movement that are perhaps pre-planned?

805 C9: Oh definitely, yeah (.) there might be something, little plan that you've read over in your reading of the score, and then something or you just feel (.) like you should change it and do something different, and I mean (.) if something goes wrong in the ensemble, or if you messed up your gesture of some kind, I mean (.) you have to be able

806 R: Mm hmm.

807 C9: to quickly get back, and it's, spontaneous right there, because if you have too much time where you're not doing anything (.) everything could just fall apart.

808 R: Mm hmm.

809 C9: But I think just having the ability to react, and

810 R: Mm hmm.

811 C9: be proactive with (.) I guess reactive and proactive.

812 R: Mm hmm.

813 C9: Because you have to see what's going on and...

814 R: Ha ha (.) no it's true.

815 C9: See something else.

816 R: It's kind of a term that someone told once me (0.5) it's called, withitness, I don't know if that's a word, withitness, but it's this awareness of everything, all at once, all the time, and constantly your awareness, changing where it is, where the focus is.

817 C9: Right.

818 R: But there's this like (.) withitness that you have that you can monitor all of that, what you just said [chuckle] right?

819 C9: For sure, yeah (.) yeah-yeah, and then (0.5) I guess:: (.) I guess it's a term that I learned from Professor Bell about his, it's one term that he made up called um: (.) erogeneration.

820 R: Erogenation?

821 C9: Yes erogeneration.

822 R: Okay.

823 C9: Something about um: (.) like (.) when you imagine something you picture in your mind, but he said like (.) it's the same type of thing but with sound. So if you like (.) just imagine a sound, and how it's associated with something you're imagining. That's a term that he::

824 R: Ah::.

825 C9: came up with, and I think that relates to conducting for sure because

826 R: Mm hmm.

827 C9: you're imagining what you want to hear

828 R: Mm hmm (.) mm
hmm.=

829 C9: =and then you have to express it

830 R: Mm hmm.

831 C9: I mean immediately or (0.3) you can think of it ahead of time, but it's something that you need to be thinking of way ahead of when you want to show.

832 R: Mm hmm.

833 C9: I think that makes sense.

834 R: Yeah, that's a cool term.

835 C9: Yeah.

836 R: I like that. Um:: (.) based on your participation in this study, would you recommend other conductors, or other conducting teachers, or conducting students, or perhaps other undergrads, if let's say this was offered as a course package, after your two conducting classes with Gareth, or something, if it was offered as a half course independent study, would that be something you would encourage other students to take?

837 C9: Definitely (.) I think it well:: (.) especially doing the conducting course, and then this towards the end of the year, really helps, um:: because then you gain, you know (.) general knowledge of conducting

838 R: Mm hmm.

839 C9: you know keeping a pulse, and cues and everything, and then you can put it into practice by learning, this is what really (.) happens, this is what you are showing, this is when you conduct an ensemble, this is what you're actually doing (0.5) whereas when you just take the course, I mean, sure you learn a lot

840 R: Mm hmm.

841 C9: but putting it in, you don't have any chance to put it into practice (0.3) whereas something like this, you do.

842 R: Yeah.

843 C9: At least see yourself, and go in front of a small ensemble for a short period of time.

844 R: Yeah.

845 C9: It's like a practical.

846 R: Yeah.

847 C9: It's almost like the practical part of the, the course, or introductory practical.

848 R: Yeah (.) I agree, I think it would be great, it's something that I should meet with our faculty about, perhaps trying to put this into the mix for the students here (.) to work with this as a third piece to their training so...

849 C9: Right.

850 R: Yeah.

851 C9: Sure.

852 R: Good (.) and um::: (.) do you believe that you're a better observer of these emblems after this study from doing the accuracy testing, and watching yourself and others?

853 C9: Better observer? Yeah (.) definitely.

854 R: And to be able to pick them out in other conductors and stuff?

855 C9: Oh, yeah, now that, well it's just like increasing a vocabulary, I guess

856 R: Yeah.

857 C9: of certain gestures and sounds:, and then you can say, "oh, well this sound, this is probably associated with this movement."

858 R: Mm hmm.

859 C9: You gain kind of an awareness of how to differentiate between them, so...

860 R: Well goo::d (.) and um::: (.) you were, you were the (0.3) you were in the conductor experimental group that was able to:: to have the middle sort of coaching session with the ensemble, and then looking at the other conductors, and scrutinizing sort of their emblematic specificity, and their expression

861 C9: Right.=

862 R: =and a little bit of dance or movement awareness, um::: (.) do you believe that that helped your ability to, to um: (.) match gestures and sounds?

863 C9: By watching others?

864 R: Yeah (.) well or doing those two sessions. Like not all the conductors in the study um::: (.) were able to do the:: working with the small ensemble, or working with the looking at the conductors from up closely on the motion capture. Do you think those two sessions, even though there were only two of them, helped you to be able to do better in the second round of accuracy testing where=

865 C9: =Yeah.

866 R: we matched gestures with sounds?

867 C9: For sure (.) yeah (0.3) because I think while doing that, and you can, you have the (.) kind of the training of picking things out on the fly

868 R: Mm hmm.

869 C9: and just remembering what you had to do

870 R: Mm::.

871 C9: and then that it helped in the second round just naturally, because (.) your mind is a little bit (.) is moving a little bit quicker.

872 R: Mm hmm (.) yeah more attuned to it.

873 C9: Yeah.

874 R: Yeah (.) from your prior::: a priori experiences perhaps.

875 C9: Yeah, exactly.

876 R: Yeah (.) good. Alright, well, thank you (0.5) and do you consider yourself more capable to um: (.) communicate phrasing in your conducting now, or at least you have this awareness of

877 C9: Yeah.

878 R: what you can do?

879 C9: Yeah yeah, I mean (.) it took practice for sure, but I think with the experience here (.) it's just, seeing (.) and knowing what the sounds what we need to do to produce a certain sound, or at least getting some ideas

880 R: Mm hmm.

881 C9: definitely helps, for sure, and then=

882 R: =Good.

883 C9: seeing what others are doing, that's another, that's huge

884 R: Yeah.

885 C9: in the learning process, you know?

886 R: Yeah.

887 C9: Learning from others, so::: (.) yeah, definitely (0.5) if you're just kind of (.) in your own little box=

888 R: =Yeah.

889 C9: reading a book about conducting

890 R: Yeah. [Laughter]

891 C9: you're not, you're not going to really learn, I mean you'll learn a lot, but you won't be able to:: take any other things in, so...

892 R: That's right (.) yeah, absolutely (0.5) a::nd um::: (.) yeah, I think also you are more capable to reflect the dynamics and articulations now that you have an awareness of it.

893 C9: Mm hmm, definitely.

894 R: Like you mentioned at the beginning.
 895 C9: And then uh (.) eliminate extra motion that doesn't need to be there
 896 R: Yeah.
 897 C9: or just how to make things more clear
 898 R: Mm hmm.
 899 C9: especially with the
 videos and the (.) it
 would be helpful to
 see the videos from
 the::=

 900 R: =Yeah I know I have to get those processed for you guys.
 901 C9: Yeah no problem.
 902 R: It'll take me awhile.
 903 C9: Yeah no problem, but that'll definitely it'll help to see that
 904 R: Mm hmm.
 905 C9: and be like, "oh, well this is what I look like" and then the comments
 and the feedback.
 906 R: Yeah (0.3) oh yeah, yeah (.) absolutely. Well thanks for your time and energy and thoughts, it's been a pleasure of course working
 with you, and uh (0.3) and uh (.) having you be in the study, I appreciate it, I know you've been busy and I appreciate your time=
 907 C9: =No problem.
 908 R: in helping me in my quest for completing this. [Laughter]
 909 C9: No problem, yeah it was fun.
 910 R: But yeah, I'm really glad you volunteered to do this.
 911 C9: Well when I first, when I first began I thought I was taking on too much, and
 912 R: Oh, no (.) this is a lot.=
 913 C9: =but then, yeah, after now I'm done I'm glad I did it, so...
 914 R: Oh good, well I'm glad you did too and um: (.) I know that it's nice when you can put your sort of learnings right into the mix now
 915 C9: Ye:ah.=
 916 R: =with what you do, and go off and practice in a different way, you know?
 917 C9: Definitely.
 918 R: So (0.5) yeah, well thanks for everything.
 919 C9: Sounds good.
 920 R: Yeah (.) awesome. [Turns off the recording devices]

Conductor Ten

- 1 R: [Starts the recording devices] Perfect, well thank you for coming today, the purpose of today's interview is just to get your thoughts on this whole process and being in this PhD study and, and just what you thought about some different elements of what you had to do [laughter] and what you sort of learned from it, so that's, that's what we're doing, and um:: (.) so state your name.
- 2 C10: Oh, okay (.) my name is _____.
- 3 R: Very good (.) and how old are you?=
4 C10: =I am twenty-two.
- 5 R: Great, and you're currently enrolled as an undergraduate student here at the University of Calgary?=
6 C10: =Yes.
- 7 R: And, what is your field of study here?
8 C10: Um: (.) I'm in um: (.) um: (.) the B. Music, um: (.) doing Interpretive Studies, focusing on more Voice.
- 9 R: Okay (0.5) Voice is um: (.) Voice is the main one and then Music Ed another one? Or::...
10 C10: I'm just taking
11 R: that class.
12 C10: Yeah.
- 13 R: Okay (.) great (1.0) so mostly on Voice (0.5) well good (.) and, and, um: (.) and you're (0.5) what year of your program are you in?=
14 C10: =I'm in third year.
- 15 R: Third year of a four year program?=
16 C10: =Yes.
- 17 R: Oh (.) great (.) and did you do your other two years here as well?=
18 C10: =No I did two years in Vancouver.
- 19 R: Oh at, at um:: (.) UBC or another school?
20 C10: No I went to Capilano University.
- 21 R: Okay, I know where that is. [Laughter] Actually, um: (.) I think I've, what have I done there? I know I've been on campus (.) it's so beautiful there, mm hmm yeah-yeah (.) really nice. Well we're sure glad you're here (.) and, um: (.) have you, have you, taken the two conducting courses here on campus yet?=
22 C10: =I did in Vancouver.
- 23 R: Oh in Vancouver, at Capilano, you did like kind of an um:...
24 C10: conducting certificate for one year.
- 25 R: Oh:: a one year program, kind of like a fall and winter class or it went all year?
26 C10: All: year, from fall to winter.
- 27 R: Oh nice (.) and who was, do you remember the teacher's name?
28 C10: Uh::: (.) I:: (.) um::: (1.0) no, I remember his face. [Laughter]
- 29 R: Yeah no problem, well it's not important, I just thought, that's so exciting (0.5) so like a one year conducting certificate, and you took that (0.5) was it like (.) a once a week thing you took your class for a whole year, or what was it like?
30 C10: I guess it was, um: (.) once or twice a week.=
- 31 R: =Okay.
32 C10: Mm hmm.
- 33 R: Nice (.) well that's good and did you have a similar, um: (.) experience like (.) with me, I did like (.) the little coaching session with you. When you did your conducting certificate (.) somewhere in that year (0.5) did you have to, um: (.) conduct for an ensemble or a group of some kind?=
34 C10: =Choir, uh (.) too, yeah.
- 35 R: Yeah: nice (.) and then all the conductors in your, um: (.) class or certificate program they also had to do that?
36 C10: Yes, yes everyone has to.
- 37 R: Oh nice (.) and, um: (.) was the choir hooked into Capilano, one of the Capilano choirs?
38 C10: Yes, yes the University Choir, yeah.
- 39 R: Oh nice (.) and he, was he also the conductor of that choir?=
40 C10: =Yes.
- 41 R: Okay perfect, now I can look him up [laughter] but that's nice because then, um: (.) you-you get to work with a real group. Yeah, it's just nice (.) my study had to do with bands, but it was a chamber band, but anyway (0.5) um: (.) but that's nice that you can make a connection (.) and how many people were in your class that, that year that did the certificate?
42 C10: Um:: (.) around ten people
- 43 R: Mm hmm.
44 C10: Hmm::.
- 45 R: Nice (.) and I like that (.) and did you get a university credit for it at the end? You said you got like a certificate?=
46 C10: =Yes.
- 47 R: But you also got a credit?
48 C10: Um::: (.) no, no (.) oh, oh yes I did, I did. So that's why I got a transfer credit to...
49 R: Here.

50 C10: Yeah, here.

51 R: So when you came here they took that year's certificate and that year, and gave you the two credits for the conducting classes? Oh that's good (.) so you don't have to take them again. [Laughter] Because you were so great (.) when you were in the uh:: in the, when you got the musical line and could work with the student band and I could tell you had the class, some kind of class before, I didn't know what, but I could tell that you knew what you were doing, so those were good. [Laughter] And, um: (.) had you ever had any private lessons with anybody other than that class?

52 C10: Conducting?

53 R: Yeah.

54 C10: Not private, no no.

55 R: Just kind of in that certificate program with that professor (.) and the (.) and the choir.=

56 C10: =Yes.

57 R: Good, okay.

58 C10: Hmm.

59 R: And were there any other ensembles that you've had a chance to, um: (.) work with before?

60 C10: Um:: I'm actually conducting a church choir.=

61 R: =Oh nice um: (.) uh (.) what's the name of your church? Or the church that you conduct at?

62 C10: Uh, it's a Korean church (.) it's Central: (.) Central Korean Church. [Laughter]

63 R: Nice (.) in Calgary? =

64 C10: =In Calgary.

65 R: Oh nice (.) well that's so nice that you could, um: (.) find a church to go to here, and then also to find that they, they would say "hey conduct our choir," and then like, then you get some really great experience (.) so that's really good. And you guys meet, um: (.) once a week in your choir? You rehearse them for like two hours or?

66 C10: Not that much, just an hour, just an hour.

67 R: An hour, one night a week kind of thing?

68 C10: Um: (.) after the Sunday service (.) yeah to prepare for the next one.

69 R: Oh nice. [Laughter] Well you get that one done and then move right on to the next one. So you do like an hour at the end of the Sunday service and then prepare for the next Sunday (.) oh good for you. Well (.) having to do so many services, then you have to really go through a lot of music and find some good stuff appropriate for the services (.) so that's good (.) yay. Well that's great (.) um: (.) some of my first conducting experiences were helping the, uh (.) director of a church choir, uh (.) she gave me a couple pieces to conduct. It wasn't every Sunday, but some of my very first experiences were working with a choir and getting a chance to do that, so it was a good experience. It was good (.) um: (.) in the, in my study [coughs] excuse me, um: (.) had you ever conducted any of those excerpts, the (0.5) we had Excerpt One, Two, Three and Four, it was *Washington Grays March*, *Barnum and Bailey's Favorite*, *March Opus 99* and *Florentiner March* (0.5) had you ever conducted any of those?

70 C10: No:: um::...

71 R: Great.

72 C10: actually I hadn't conducted like (.) an instrumental group. I just conducted choir.

73 R: Great (.) and had you ever performed as an ensemble member or heard them before? =

74 C10: =I'd heard them before, like, those kind of marches before.

75 R: Yeah (.) and, um: (.) did you ever play an instrument in any of them?

76 C10: I played the violin, I played it in high school.=

77 R: =Oh okay (.) in an orchestra, in high school (.) oh great. Well that's good that you had that chance to be in orchestra. I play piccolo in the Civic Symphony and flute, if their lady who normally plays is out of town or sick, or can't do it (.) then they call me in as one of the subs, but that's the only time I get to do orchestra (0.5) so I love it, but anyway that's great (.) and um: (.) now I remember coming into your Education class and passing out that letter about my study, was that what mainly influenced you to do this? Or, or Colleen told you (.) you should? Or:: (.) what was..

78 C10: Yes yes, no:: (.) I was just, I was just interested in, uh yeah (.) doing conducting.

79 R: Oh good (.) good (.) and obviously I know why, because you're conducting [laughter] because well you're working with groups so um: (.) hopefully I'll be able to get (.) if you felt like (.) even though my study was more focused with the band (.) if you could apply some of the ideas with the choir, but um: (.) what gestures in my study (0.5) we did this sort of press gesture, strong and sustained, and we did a gli::de kind of gesture, and a da::b gesture and a punch gesture (1.0) which one was the easiest for you to do? Or which do you think is the easiest for you to do?

80 C10: Uh:: (.) punch.

81 R: Yeah [laughter] okay, and which one do you think is the hardest to do?

82 C10: Uh:: just the pointing.

83 R: The little dab?

84 C10: Yeah.

85 R: And then, the difference between the two, I guess one is stronger and one is really light, right? So is that mainly the difference on probably why you find it different? Or...=

86 C10: =I guess so, yeah.

87 R: Hm hmm (.) and the one is kind of (.) a little movement and the one is kind of a big movement. Do you find it easier to connect to the big movements?=
88 C10: =I think so yeah, like pushing in and like the big punch. I think they're easier for me.
89 R: Mm hmm (.) yeah (.) great (.) awesome, and um: (0.5) uh (.) do you think, in my field we talk about this notion of tracing a sound or maybe, um: (.) drawing it, the contour of the sound. Do you think about, do you ever think about your movements when you conduct the choir as doing that?
90 C10: Oh:: like moving, like phrasing more?=
91 R: =Yeah (.) yeah, do you ever think about your, when you work with your choir at your church, do you ever think about some of your movements as being connect to the, the phrasing more than the beat, let's say?
92 C10: Mm hmm: yeah: (.) yeah, I like to show more phrasing, but I'm more used to doing beat so that's what I'm working on (.) cuz the choir, they, they don't need actual beat, they need more like expression, or phrasing (.) so yeah, I like those kind more and I'm working on them.=
93 R: =Yeah (.) it's definitely a next level of conducting to conduct to the phrase, and know what to do and how to show it, and just step outside and try it. And, and I think it's really great that you meet with your group once a week, because you get a chance every week to try some new things, and you find out right away if they worked for your group or not, right? [Laughter] And this is one I always think about, that sounds are very descriptive, that they really say (.) the sound is very descriptive and it says what it needs to say, but gestures, the movements they can be very general, where some gestures are good for a number of sounds, do you um:: (.) uh, have any thoughts about that?
94 C10: Um:: like connecting between the motion and the sound?
95 R: Yeah (.) yeah what do you think about that?
96 C10: Um:: (.) I think there's a big difference depending on the conductor.=
97 R: =Yeah.
98 C10: Like, um: (1.0) for example for choir, like holding this [demonstrates an inviting gesture with the left hand palm open and extending out from the body] yeah, it really makes a difference than something doing (1.0) I don't know, um: (.) what should I say. I know there's like a difference, a big difference between moving and just, just...
99 R: Staying still.=
100 C10: =Yeah, cuz this makes more, um: (.) pull out the sound. [Demonstrates a crescendo glide gesture]
101 R: Mm hmm (.) mm hmm
102 C10: A lot more.
103 R: Mm hmm.
104 C10: And, and even like, [demonstrates a hands pulling apart horizontally and moving vertically upward] um: (.) vertical and horizontal
105 R: Oh ye::ah.
106 C10: it's really different, yeah.=
107 R: =Yeah, what you were...especially the singers like what this means [demonstrates a gesture where the right hand ascends and the left hand descends, elongating the vertical distance between the hands] What does this kind of mean for a singer?
108 C10: It's like more opening, yeah.
109 R: O:kay.
110 C10: Opening, yeah.
111 R: Opening the sound and opening your mouth too?
112 C10: Hmm:.
113 R: Or instead your mouth?=
114 C10: =Inside, yeah inside.
115 R: Oh: (.) and this way [demonstrates a gesture where the right hand moves right and the left hand moves left, elongating the horizontal distance between the hands] means, kind of breathing?
116 C10: Reach, reach.
117 R: Reach.
118 C10: Breathing, yeah. Breathing and reach.
119 R: O::h. [Laughter]
120 R: Well that's good. Well I'm an instrumental conductor, so this is important, I'm learning. [Laughter] Well good and, um: (.) why are some properties of sound, that are, or what are, what are some properties of sound that change a lot and require a, a movement to encourage them. (1.0) So like something in the music changes, so your movement changes
121 C10: Mm hmm
122 R: to show it.
123 C10: Mm hmm.
124 R: (1.0) So what are these changes that happen in music that you find a lot of?
125 C10: (1.0) Uh:: (.) well like, like legato and...
126 R: I guess staccato kind of...
127 C10: Yeah, yeah (.) those.
128 R: Articulation

129 C10: Articulation.
130 R: changes?
131 C10: Yes.
132 R: Oh yeah, yeah.
133 C10: Mm hmm.
134 R: Yeah, they always change, right? Depending on the style and mood of the piece
135 C10: Mm hmm mm hmm.=
136 R: =and everything. Yeah, that's a good one because articulations are always changing so
137 C10: Mm: hmm..
138 R: our movement should obviously if it's legato and we're conducting like this [demonstrates a staccato and angular pattern] we don't want to be like that=
139 C10: =Mm hmm.
140 R: right? Very pointed, because that's not reflecting legato so it's important I think
141 C10: Yes, yes.
142 R: to show that.
143 C10: Hmm..
144 R: Yeah absolutely [laughter] great (.) and um:: (.) do you feel that in, uh, in (0.5) our gestures
145 C10: Mm hmm.
146 R: that they're strongly linked or hardwired to particular sound moments? Like, let's say you hear, ba da dup, ba da dup, ba da dup, boom and then you have, in another piece, it's a different piece and in another piece you hear a very similar ba da da da dup, ba da da da dup, ba da da da dup, boom.
147 C10: Mm..
148 R: Would you be driven to do a similar movement, do you think?
149 C10: I think so, yes (1.0) um:: (.) cuz I was doing like similar things, um: (.) when I did extra conducting
150 R: Yeah.
151 C10: over and over so I think, yeah it's a similar thing.
152 R: Yeah (.) yeah.
153 C10: Hmm.
154 R: And when you were in the motion capture lab and I mixed up the sounds
155 C10: Hmm..
156 R: you know, you had the eight in order and then I mixed them all up on you.
157 C10: Mm hmm.
158 R: Did you find um:: (.) once you got connected to what sound it was, that you were doing similar movements for them even though they were mixed up?
159 C10: Ah some, so:me are yes, some were similar I guess.=
160 R: =Yeah excellent and um: (.) in the emblems that we work with, these key sound moments, do you think about them as having different dimensions like (.) the (.) the um:: (.) the up and the down
161 C10: Hmm..
162 R: z dimension, or the right to left, y dimension, or the back to front, x dimension (0.5) so do you think about your movements as being...
163 C10: Ah yes, yes: (.) um:: (.) cause it means a different sound, right?
164 R: Mm hmm.
165 C10: Like down here makes more ba:ss
166 R: Hmm.
167 C10: sound and up here more like treble sound like flute or...=
168 R: =Yeah.
169 C10: something like that.
170 R: Yeah.
171 C10: and yes, and like (.) far is richer, and back here is more piano and more softer sounds.
172 R: Ye:ah I agree.
173 C10: Yeah.
174 R: And um: (.) do you think the same applies in choral music for like
175 C10: Yes.
176 R: for the men and the treble and tenor voices can be
177 C10: Yes.=
178 R: =down here and the sopranos

179 C10: Mm hmm.

180 R: sometimes would be up here?

181 C10: Mm hmm.

182 R: Hmm.

183 C10: Yes, definitely.

184 R: Oh good (.) good I always wondered if that was connected.

185 C10: Ah::.

186 R: Yeah [laughter] well I get a chance to work with choirs, but mostly as a guest and not usually as a regular gig

187 C10: Mm hmm.

188 R: but um, mostly instrumental is my gig, but um: (.) it's neat though to see that the soprano voices are kind of up here too, and the bass voices are still down here.

189 C10: Mm hmm.

190 R: Good (.) if the sound is rising in pitch what action might you do?

191 C10: Rising in pitch?

192 R: Yeah.

193 C10: Oh. [Demonstrates and upward moving glide gesture and chuckles]

194 R: Yeah, no [laughter] that's a common one for me too, and no one really in the interviews has said the opposite, so (.) and then the opposite, when the sound is falling in pitch, would you then just do a downward kind of a gesture?

195 C10: Mm hmm.

196 R: Yeah and um:: (1.0) if the sound moment is quick like um: (.) ba da dut (1.5) ba da deet what might you do with these little sounds?

197 C10: Point, pointing.

198 R: Yeah?

199 C10: Mm::.

200 R: Yeah that's a good one

201 C10: [Laughter]

202 R: And then if it's strong like, a bass drum or a cymbal crash what might you do?

203 C10: Oh punch

204 R: Mm hmm.

205 C10: from, from the bottom.

206 R: Yeah, and then um: (.) and I guess in choral music sometimes, you just have like a big forte piano chord sometimes the piano really, you know (.) comes down and that might be a similar spot where we could use it, right?=
 207 C10: =Mm hmm yes.

208 R: Do you think about these moments as having shape to them?

209 C10: (1.0) Hmm::.

210 R: Yeah.

211 C10: Yes of course, cuz like showing them cuz, uh (.) they can fill it like what I, what I mean...

212 R: Yeah.

213 C10: Yeah.

214 R: Yeah, they fill the sound

215 C10: Hmm::.

216 R: from your movements per say, right?

217 C10: Hmm::.

218 R: Yeah, absolutely (.) and um: (.) in my field we talk about this notion of salience. Salience is (1.0) a gesture or sound stands out because of the gestures and sounds that came before and after it. So by this I mean, for example, a very soft sound and then a loud sound and then a very soft sound again. So the, the, so it changed (.) so the before and after sound is different than the moment, the big sound. So do you think that conductors use their movements to, to show that?

219 C10: Ye:ah, um: (.) yes that's what conductors are doing, right? Cuz um: (.) I don't know I guess um:: (.) sometimes the players might forget what they're doing, but the conductor remind, reminds them to what is coming

220 R: Yeah.

221 C10: next and show, shows them.

222 R: Mm hmm (.) I think what you said is really key, like what is coming and what we have to remember.

223 C10: Mm hmm.

224 R: Mm hmm (.) and now that you mention that what is coming thing, do you think our movements are spontaneous and occur in the moment, or: do you think there are times (.) where you think ahead to the moment and pre-plan your action, or both?

225 C10: (2.0) Um:: both (.) sometimes spontaneously, I just do it, but mostly I guess I need to think um: (.) in advance and think about what, what the conductor should do.

226 R: Hmm.

227 C10: Yes that's what I'm thinking.=

228 R: =Yeah and for me I know it's always so important to have a vision, so you looked at this music and you know

229 C10: Mm hmm.=

230 R: =how fast it's going to go, you know the main contours of the phrasing, and you know the main climax of the piece and you have in your mind, a vision for the sound

231 C10: Mm hmm.

232 R: and then your movements can be spontaneous and as you react to the ensemble.

233 C10: Mm hmm.=

234 R: =You react to the choir and what they're doing, and then you might be drawn to do something more (.) if you want more crescendo than they're giving you

235 C10: Mm hmm.

236 R: then you may give more, and so (.) that's very spontaneous I think, and then (.) but then, but then, but knowing or having your vision, having some plan that yeah (.) I do want a big, a big moment here (0.5) so I want to plan something big there, is important too, right?

237 C10: Mm hmm.

238 R: A little bit of both is always good (.) great, and if the sound is like sustained and has notes that ascend up to a very light last note like ba da dup (.) ba da da deet something, what might you do?

239 C10: (1.0) Um::: (.) if it's getting...

240 R: Higher?

241 C10: higher um::: (.) I'll go higher

242 R: Yeah.

243 C10: as well.

244 R: Yeah me too!

245 C10: Ba da dup, ba da dup, ba da bup. [Conducts a pattern moving vertically upward with each rhythmic grouping]

246 R: Yeah (.) me too, that's what I would do too. I always like asking people what they might do as they um: (.) tell me, um: (.) great (0.5) and then um: (.) I: just want to talk through briefly about these tests that you had to take.

247 C10: Okay.

248 R: Um::: (.) and just get your opinion on each of the Parts, Part One, Two and Three

249 C10: Hmm::.=

250 R: =and just see what you think. In Part One you had to listen to three sounds and watch one video, or watch one video and then listen to three sounds (0.5) which way did you prefer to have it? =

251 C10: =Uh::: see the movement first and then listen to the other ones.

252 R: Yeah?

253 C10: Yeah.

254 R: Yeah.

255 C10: I think cuz listening, first well (1.0) it gets like (.) confusing, it's hard to remember like which songs were, were which order

256 R: Yeah.=

257 C10: =so that's a little confusing

258 R: Yeah exactly (.) to remember all three of them and in what order they were in, right?

259 C10: Yeah.

260 R: And then in Part Two where you watched three videos and then listened to one sound, or listened to one sound and watched three videos, which one did you like first?

261 C10: I:: liked listening, listening to one.

262 R: And then watching three?

263 C10: Yeah.

264 R: Yeah, yeah (.) for the same reason that you picked

265 C10: Yes.

266 R: that you could keep in mind the one and then compare it? Good and then in Part Three you had to (0.5) you saw one, two or three different audio gesture combinations and had to pick out the one that made the best

267 C10: Mm hmm.=

268 R: =auditory and visual match

269 C10: Mm hmm.

270 R: and what did you think about having to do that?

271 C10: Um::: (1.0) uh::: I think there was like an obvious answer [laughter]

272 R: Yeah?

273 C10: in the, the kind of questions, yeah.

274 R: Yeah, you found a connection to the obvious one right away?

275 C10: Mm hmm.=

276 R: =And then it was easier

277 C10: Yes.

278 R: to select it.

279 C10: Yes.

280 R: Good (.) and um: (.) now another thought that I had is um: (.) now I haven't scored all the tests yet, I'm still putting in what everybody said for each question, but do you think your score improved from the first session to the second session because you had conducted the excerpts in the

281 C10: Yes.

282 R: middle section?

283 C10: Yes, I think so.

284 R: You kind of made, made a connection to the musical lines and when you had to go back a second time, you knew what the test was about I guess

285 C10: Yes.

286 R: but then you also had had like

287 C10: Ah: yes.

288 R: experience without just the little clips you got the whole, whole melody, right?

289 C10: Yes.

290 R: Yeah so you felt that that helped you?

291 C10: Mm hmm.

292 R: Good, well I don't even know cuz I haven't marked them yet so, but

293 C10: Okay.=

294 R: =I can tell you eventually [laughter] if it did, but um: (.) but I always like asking the conductors if they thought that that helped them. So: good (.) great (.) excellent. And um:: (.) there's something that I observe sometimes and in choir um:: (.) I'm not sure this happens as much as in band, music or orchestra but there's two situations (1.0) so I want to get your thoughts on them.

295 C10: Okay.=

296 R: =One situation is that the conductor is expressive and showing a lot about the phrasing, but the ensemble is not really singing the Phrasing, they're just kind of blandly singing the tune.

297 C10: Mm hmm.

298 R: And then the other, the opposite, which would be like the ensemble or choir is singing so beautifully, with so much phrasing, but the conductor is not really doing much

299 C10: Mm hmm.

300 R: like to show it.

301 C10: Mm hmm.

302 R: What do you think about those?=
303 C10: =I thought the first one was good um:: (.) a few months ago, but as I study
304 R: Yeah.=

305 C10: =here and conduct more and see lot of choirs doing it, I think the second one is better because um:: (.) uh: like if the conductor's are doing so many things um:: (.) if the conductor does something really important then the, the singers or players, they can just, just um: (0.5) um: (1.0) oh what should I say? They, they might not think that's important

306 R: Mm hmm.

307 C10: right? So emphasizing the wand that's really important I think that's better.

308 R: Mm hmm.

309 C10: Mm hmm.

310 R: Mm hmm (.) so kind of this idea that if you show it all, all the time

311 C10: Mm hmm.

312 R: then the players, or the singers are desensitized and they

313 C10: Mm hmm.=

314 R: =and they don't really pay attention.

315 C10: Mm hmm that's right.

316 R: But if you reserve those big expressive moments for the times

317 C10: Yeah.

318 R: where you really want it, then they'll respond better you think?

319 C10: Yes.

320 R: Yeah than always over the top (.) because then what would they respond to? But if you reserve those times for those key moments, then you feel the people respond better.

321 C10: Yes.

322 R: Yeah and I think in that situation then the audience makes a connection and sees

323 C10: Mm hmm.

324 R: the conductor's movement matches the singers shaping=

325 C10: =Mm hmm.

326 R: and the music, and then they understand the piece better.

327 C10: Mm hmm.

328 R: Their ears hopefully

329 C10: Yeah.
 330 R: hopefully their ears will hear differently (.) if they see (.) if the conductor is up there doing all this all the time the audience would be probably wondering like
 331 C10: [Laughter]
 332 R: is that big, or if they're not really musically trained um: (.) they may not know
 333 C10: Mm::=
 334 R: =but, if they know the music a little bit (.) and they can hear it, and then they kind of make a connection to the movements of the conductor and what the singers are singing, I think that's really great.
 335 C10: Mm hmm.
 336 R: But I like what you said about reserving what you do for those key times you really want
 337 C10: Yes.
 338 R: something to happen in the music=
 339 C10: =Mm hmm.
 340 R: and then not over doing it
 341 C10: Mm hmm.
 342 R: because that's really important. That was one of my (0.5) oh I would say one of my biggest problems as a conductor, uh:: starting out, is (.) I just wanted to show everything
 343 C10: Yeah.=
 344 R: =and then I was showing too much, but um:: (.) I think now I'm learning when to do more, and when to do less, and uh (.) and then uh (.) that's a happy balance you know.
 345 C10: Mm hmm.
 346 R: [Laughter] and see you get better at knowing when the players watch you
 347 C10: Yeah.
 348 R: but I have observed that (.) that the vocal singers tend to have their eyes up more
 349 C10: Mm hmm.
 350 R: than the instrumental players whose eyes go down into the music to play the notes, and they're not, they don't have their heads up a lot and, um: (.) sometimes in choral music we might memorize our piece
 351 C10: Mm hmm.
 352 R: but in band, we rarely ask them
 353 C10: Mm hmm.=
 354 R: =to memorize, and so (.) they always have their heads in the music
 355 C10: Mm hmm.
 356 R: you know.
 357 C10: Mm hmm.
 358 R: So, that could be something to think about for why that happens too I'm not sure. Oh (.) did you feel that coming into the motion capture lab, um: (.) has changed the way you thought about any of your move... um: (.) movements? Even though it's music, band music, have you thought about the way like um: (.) I guess um: (.) I'm probably not phrasing this very well, but in the motion capture lab (0.5) I didn't tell you how to move, but I mixed it up on you and randomized it
 359 C10: Mm hmm.
 360 R: [laughter] and then you had to just do whatever came
 361 C10: Yes.
 362 R: from the sound.
 363 C10: Yes.
 364 R: Has that changed the way you think about conducting at all?
 365 C10: Um:: (.) yeah (.) like some movements were different than what I used to do
 366 R: Yeah.
 367 C10: and um:: (.) specially the um: (.) the one, the time that I had to conduct a real group.
 368 R: Yeah.
 369 C10: I learned a lot. [Laughter]
 370 R: You did? Oh good.
 371 C10: Yeah. [Laughter]
 372 R: From my little coaching?
 373 C10: Yeah. [Laughter]
 374 R: Oh good.
 375 C10: [Laughter] Yeah.
 376 R: And I'll eventually, it'll take me probably the whole summer, but I'll eventually get you your tape
 377 C10: Okay.

378 R: so you can watch what we did
and=

379 C10: =Yes:..

380 R: remember it later.

381 C10: Yes.

382 R: But you did learn a lot

383 C10: Yes yes.

384 R: from that little one hour session?

385 C10: Yeah. [Laughter]

386 R: Well good I know, even though it wasn't a choral situation, those kind of things we worked on

387 C10: Mm hmm.

388 R: you can put in

389 C10: Mm hmm.

390 R: put into practice,
with your choir.

391 C10: Yeah, yeah right

392 R: Yeah.

393 C10: that's true.

394 R: Oh good, well I'm glad that I helped you in

395 C10: [Laughter]

396 R: the learning session.

397 C10: Yes.

398 R: I'm glad you got a lot out of it, because I think a lot of times it's nice to have someone next to you showing you and telling you

399 C10: Mm: hmm:.

400 R: to try things

401 C10: Mm: hmm:.

402 R: differently and then you can experiment

403 C10: Yeah.

404 R: with them with your own group.

405 C10: Yeah.

406 R: Mm hmm (0.5) yeah and I always find, I record myself in rehearsal sometimes

407 C10: Hmm.

408 R: to watch myself

409 C10: Uh huh.

410 R: and um: (.) with this old beater
camera=

411 C10: Mm hmm.

412 R: [laughter] but it's a good way to just check in: (0.5) and look at myself and say that was really good, I like that

413 C10: Hmm.=

414 R: =or what am I doing that didn't make any sense

415 C10: [Laughter]

416 R: or I've got to work on that. So it's a good evaluation tool

417 C10: Mm hmm.=

418 R: =a good way to evaluate yourself, right?

419 C10: Hmm:.

420 R: So that's good (.) and um: (.) had you uh, do you feel like now (.) in working with your choir, you can be more expr, uh (.) expressive
in your movements?

421 C10: Uh: yes, yes

422 R: Good.

423 C10: cuz um: (.) uh that day um: (.) I was doing too much like, just um: (.) patterning

424 R: Mm hmm.=

425 C10: =and too much left hand. I don't know what I was doing, but yeah, I learned that I was doing too much patterning so I need to like (.)
show more phrasing and um: (.) give them good cues like not every time doing left hand, but

426 R: Yeah.

427 C10: yeah.

428 R: Yeah which is fun (.) yeah we were experimenting with giving the cue in a different hand

429 C10: Yeah.=

430 R: =weren't we? Yeah that was fun (.) that was really fun. And then based on your participation in this study, uh if I were to run this
let's say as a: fall course (.) where students could do their regular conducting courses here in the fall and winter and then the next
year, they could do this kind of a conducting where they do more expressive gestures, would you encourage other students to take the
class or to try stuff

431 C10: Oh yes.
 432 R: like that?
 433 C10: Cuz I really enjoyed it.
 434 R: Oh good. [Laughter]
 435 C10: [Laughter]
 436 R: Well that's great! Well I'm glad cuz I find that a lot of times, with the two conducting classes, we get a good pattern and a
 437 C10: Hmm.=
 438 R: =really clear foundation and a good technique, but then the next level is to try some crazy
 439 C10: Mm hmm.
 440 R: expressive things
 441 C10: Yeah.
 442 R: that um: (.) that we just
 (.) that no one=
 443 C10: =Mm hmm.
 444 R: ever teaches us how to do.
 445 C10: Hmm.
 446 R: So you just need someone to help coach you through trying, right?
 447 C10: Yeah.
 448 R: And then once you kind of know some things, you can try them.
 449 C10: Hmm.
 450 R: Good, and um: (.) how has this study changed your understanding of conducting?
 451 C10: Mm: (1.0) because it was my first time conducting a real, real instrumental group
 452 R: Yeah.
 453 C10: so I got the sense of um: (.) how the players um: (.)
 respond to my conducting and
 454 R: Mm:..
 455 C10: how it sounds.
 456 R: Mm hmm.
 457 C10: Yeah.
 458 R: Oh good.
 459 C10: Mm:..
 460 R: Yay that's great (.) and then um: (.) do you consider yourself a better observer having done
 these sort of gesture tasks [laughter] where you
 461 C10: Mm:..
 462 R: match the sound and
 463 C10: Hmm.=
 464 R: =the movement? Do you consider yourself a better observer of these emblems? Like when Dr. Whidden, let's say in class gives one
 of those crazy
 465 C10: Mm hmm.
 466 R: punches
 467 C10: Mm hmm.
 468 R: or dabs
 469 C10: Mm hmm.
 470 R: for presses (.) can you, do you feel
 471 C10: Mm hmm.
 472 R: like you can observe it better?
 473 C10: Uh yes (.) yes.
 474 R: Yeah (.) yay (.) and then um: (.) do you believe that, oh we already asked you that, that the learning session was helpful?
 475 C10: Hmm (.) mm hmm, yes.
 476 R: Good (.) and do you consider yourself more capable to communicate phrasing in your gestures, as you work with your own group?
 477 C10: Uh: yeah it's getting better. [Laughter]
 478 R: [Laughter] Yeah it's getting better.
 479 C10: [Laughter]
 480 R: It's a whole process, right?
 481 C10: Mm hmm.
 482 R: It doesn't happen overnight or anything.
 483 C10: Mm hmm.
 484 R: But that's good that you were willing to, throw yourself into this and just try and
 485 C10: Mm hmm.
 486 R: keep an open mind (.) and do some crazy things
 with me, that you wouldn't have normally been

asked to do

487 C10: Mm hmm.=

488 R: =because then you can try these things out in your own rehearsals.

489 C10: Mm hmm.

490 R: So that's great (.) and: um: (.) well good (0.5) and, well thank you for your time and for being in this study (.) and for giving all of these ideas um:: (.) giving of yourself and for (.) um: (.) making it happen, and good luck with your choir

491 C10: Okay.

492 R: and everything [clapping]
and so, yeah
Yeah good.=

493 C10:

494 R: =thanks for coming in today.

495 C10: Yeah, thank you.

496 R: Yay [laughter] it's great. [Turns off the recording devices]

Conductor Eleven

- 1 R: [Starts the recording devices] There we go (.) it looks good (.) and we will see if it uh: (.) stops. [Laughter]
2 C11: Okay.
3 R: But anyway (.) I think we're up and running again so (.) so yeah, so just feel free to be honest with anything:: and (.) and everything and then if there's something:: that:: you want to put in, do so (.) and then (.) you know (.) it's just a really laid back interview, but I'm going to make sure that I go through all the (.) sort of what you went through and get your thoughts on that.
4 C11: Oh, okay.
5 R: And then if anything is quoted:: (.) um:: (.) you'd review it and then it would be of course under your (.) conductor number.
6 C11: Oh, okay.
7 R: So (.) it's:: totally anonymous (0.5) and um:
8 C11: Okay.
9 R: you're not going to be quoted as (.) _____ said=
10 C11: =Okay.
11 R: and so on (0.5) so (.) you're currently enrolled (.) as an undergraduate at the University of Calgary, and what is your field of study here?
12 C11: So I am majoring in Music, and I'm minoring in Communications (.) I am actually getting a BA in Music.
13 R: Oh:: okay.=
14 C11: =Yeah.
15 R: That's great (.) and it's a four year degree then?
16 C11: Yes.
17 R: Okay (0.3) okay (.) and um:: (.) have you taken two or fewer (.) courses in conducting:: then?
18 C11: Yes.
19 R: Okay (.) perfect. And:: um:: were they the conducting::, the two conducting classes
20 C11: Yes.
21 R: you take with your degree
22 C11: Yes.
23 R: or could take with your degree?
24 C11: Yeah (.) so they were just the full year, so::
25 R: Yeah.
26 C11: the:: (.) Fall semester and the Winter semester.=
27 R: =Right (.) okay great, and have you studied privately with anyone (.) in conducting?
28 C11: In conducting?=
29 R: =Yeah.
30 C11: No.
31 R: Okay, great (0.5) and (.) um:: (.) oh I forgot to ask you to state your name in full.
32 C11: Oh. [C11 and R laughter] _____.
33 R: Excellent (.) and how old are you?
34 C11: Twenty-one.
35 R: Excellent. [Laughter] No it's um:: (.) it's good for me to (.) know that information:: (.) not that it's um:: (.) it's a big deal but (.) anyway (0.5) in my field we talk about this notion of tracing a sound. Do you feel that you're emblematic gestures or movements:: are done or performed with the intention of drawing:: the soundscape?
36 C11: Yes (0.5) I (.) kind of felt that (0.3) it was one of the challenges when I was conducting because (.) I found (.) that I was (.) wanting:: to use conducting gestures I learned:: in conducting, but instead, I just was going for what I was feeling, so I found sometimes I wasn't counting the two::s, or whatever the case be (.) but, it was more about (.) what I was picturing with music.
37 R: Good (.) well that's great, I think it's really important to get away from (.) get away from (.) the idea of what the pattern is (.) or the beat and just think about the movement in the music and (.) um:: (.) being totally inspired by just that.
38 C11: Right.
39 R: So that's wonderful (.) um: (.) describe um:: (.) oh, sorry, I forgot to ask (.) had you ever conducted any of these four:: (.) um: (.) march excerpts they were:: (.) the *Washington Grays March*, or the *Barnum and Bailey's Favorite*, or the *March Opus 99*, or the *Florentiner March* where these little um: (.) clips came out of?
40 C11: No, I hadn't.
41 R: Perfect (.) had you ever performed as a:: um: (.) an ensemble member of any of those marches?
42 C11: No.
43 R: Great (.) well it's good for my study
44 C11: They were all new.
45 R: for my study, in the field (.) of Wind Band (.) these marches are (0.3) fairly well known, but to students in undergraduate degrees (.) that (.) not necessarily (.) um: (.) you don't have to be an instrumental student but, if you're not familiar with them, I think it actually gives you: (.) perhaps an advantage over someone who:: is familiar
46 C11: Yeah.

47 R: because they have a specific idea in mind rather than being open to trying something

48 C11: Right.=

49 R: =new (.) so that's good. Um: (.) what factors influenced your decision to take part in this study?

50 C11: (2.0) Uh (.) you asked me. [C11 and R laughter]

51 R: Excellent.

52 C11: That would be the main reason

53 R: Yeah.

54 C11: but I thought I would definitely learn something from it and (.) I need work with my conducting anyways (.) so it was good to see like (.) what would happen if I just (.) was thrown into a situation where I had to pick something.

55 R: Oh (.) that's good (.) oh and I appreciate you:: saying yes when I asked you (.) and um:: yeah, it's been great having you:: to do this=

56 C11: =Thank you.

57 R: and I'm (.) um (.) yeah, I was glad you could come into the motion capture lab and do something really

58 C11: Yeah.

59 R: out there and... [laughter]

60 C11: Exactly. [Laughter]

61 R: and everything (0.3) and your movements were very graceful being thrown into that sort of situation of having

62 C11: Okay, good.=

63 R: =these (.) all of these eight sounds, but then they're (.) they come randomized,

64 C11: Right.

65 R: and they're all mixed up (0.5) so you don't know what order they are going to come in.

66 C11: What could happen next?=
67 R: =Yeah (.) and then you just have to just (.) go for it

68 C11: Right.

69 R: and I thought you had very nice beautiful and

70 C11: Oh:: thank you.

71 R: graceful movements (.) you know, being thrown into the thick of it. And um:: (.) with these (.) gestures:: (.) um:: (.) I want to talk about which one was the easiest to incorporate? So:: (.) in my study we (.) we:: um:: looked at a, sort of press gesture which is stro::ng and sustai::ned (.) a kind of gli::ding gesture which is light and sustai::ned, a dab:: (.) which is (.) um: (.) sudden and light, and a punch, which is very stron::g and sudden. Out of the ones I mentioned, which one do you think is the easiest (.) to put in the mix, for you?

72 C11: I think the:: um: (.) really light gestures:: (0.3) so the dab

73 R: Hmm::.

74 C11: would be the easiest for me.

75 R: Yeah.

76 C11: I just felt more in tune with it.

77 R: Hmm (.) yeah (.) and um: (.) on the flip side of that, which one do you think is the most challenging to incorporate into your (.) conducting?=
78 C11: =I think the glide.

79 R: Hmm::.

80 C11: Um: (.) do you want reasons why I think that way?

81 R: Sure, you can offer them, that's great.

82 C11: Um::...

83 R: Reasons are good.

84 C11: um:: with those ones I felt I really (.) couldn't (.) keep the time and with the dab I felt like it was easier to maybe show the two, but with the glide it was harder to show that, so::...

85 R: Yeah (.) cuz you would have to sort of step outside of that

86 C11: Yeah.

87 R: to get that.

88 C11: Right.

89 R: Mm hmm (.) yeah absolutely, yeah totally (.) and for me it's like the difference between the micro (.) kind of representing things that are small:: and:: micromanaging the music (.) and the larger context

90 C11: Yes.=

91 R: =of like something like a crescendo, or a glide, or whatever (0.3) good (0.5) and um:: (.) in:: (.) in:: um:: (.) this... in my field there's this question that I've really been toiling with, so I'll get your thoughts on it. Why:: are some::e gestures or movements good for (.) a wide variety of sounds? So (.) some gestures they're very appropriate for a number of different sounds.

92 C11: (1.0) Um (.) good question.

93 R: Yeah [C11 and R laughter] and I think about like (.) um:: (.) and I'm trying to decide, in my own mind, if it's because:: (1.0) um: (0.5) in movement (1.0) there are:: (.) maybe (.) I'm trying to decide like (.) if there are a, a limitless number of types of sounds that you could hear:: (.) or:: if because:: (.) um:: (1.0) the type (.) and:: not as many gestures that we do?

94 C11: Yeah.

95 R: Yeah (.) or:: the opposite, maybe there's (.) a limitless number of types of gestures we can:: do:: but (.) the sounds are not so descript, and we just (.) tend to (.) like (.) yeah.

96 C11: Right (.) I think there are limitless sounds:: so I think we do need to

97 R: Hmm.

98 C11: break it down, and that's why (0.3) like in conducting class you learn (1.0) a very limited amount of gestures that you're supposed to try and take from:: what you can from it. So like, a glide (.) might be different, but it's still a glide, right?

99 R: Mm hmm (.) mm hm.

100 C11: So:: I think that's probably part of it

101 R: Mm hmm.

102 C11: I hope that answers your question. [Laughter]

103 R: No:: I think it's good (0.5) well I like getting peoples' (.) um: (.) thoughts and opinions because (.) uh:: it's something I:: grapple up with.

104 C11: Yeah.

105 R: And (.) what are some properties of sound (.) that change frequently and require an action or movement to help encourage them?

106 C11: (1.0) Um:: (.) dynamics would be a big one.=

107 R: =Yeah.

108 C11: That needs to be shown otherwise it's going to be (.) the same the whole way through.

109 R: Mm hmm (.) mm hm. (3.0) Yeah I think dynamics is a really great

110 C11: Yeah.

111 R: example because it changes a lot

112 C11: Yeah.

113 R: like all the time, right?=
 114 C11: =Right.

115 R: So if we reflect those changes in our movement, then that's encouraging a change to happen then, right?

116 C11: Yeah.

117 R: On the sound (.) mm hmm (.) yeah that's a really good one. [Laughter]

118 C11: Yeah (.) and then I think maybe just yeah, if it's (.) smooth:: verses if it's (.) um: strong or more staccato or...

119 R: Mm hmm (.) mm hmm, yeah, oh absolutely (.) the articulation style can effect (.) the way that you conduct, right?

120 C11: Yeah.

121 R: Mm hmm (.) yeah (.) if the notes are longer or shorter (.) or more accented

122 C11: Right.

123 R: you might do all different things for all of those

124 C11: Yeah.

125 R: right?
 [Laughter]

126 C11: Exactly. [Laughter]

127 R: Yeah definitely depends on (.) on uh:: what, what's happening, right?

128 C11: Yeah.=

129 R: =Yeah (.) definitely (0.3) good. (1.0) Um (.) it looks like a lot of questions, but I just wrote really big. [R and C11 laughter] It's not really but, anyway (1.0) um:: (.) do you think some of our emblems or gestures that you know and use, are strongly linked or hardwired to particular sound moments? For example, if you hear this um:: (.) ba da da, ba da da, ba da da, boom (.) um:: hit (.) in more than one march (.) some type of gesture, or some type of sound that is similar, do you think you would (.) be sort of hardwired in your brain to produce the same type of movement (1.0) if you encountered it another march

130 C11: Yeah.

131 R: let's say?=
 132 C11: =Yeah I think so, and I think (.) I:: (.) well I'm not sur::e

133 R: Hmm.

134 C11: about the videos that we saw if this was always the case

135 R: Mm hmm.=

136 C11: =because I could've been getting them wrong

137 R: Yeah.

138 C11: but there was always kind of like (.) a strong gesture like this [demonstrates a punch-like gesture] or some sort of punch (0.5) so (.) you could see that (.) a number of conductors all (.) were all feeling that same thing.

139 R: Yeah.

140 C11: And that if they heard it again they would probably (.) go with the same gesture.

141 R: Yes::, yes (.) I think that is what's was really fascinating with me now. I've had (.) thirteen different undergraduate conductors now:: with the same sounds, right?=
142 C11: =Right.

143 R: And I'm getting a lot of s::imilar (0.5) movements (.) from those little sounds

144 C11: Right.=

145 R: =that are coming out as not necessarily universal movements that we all do::.

146 C11: Yeah.

147 R: but (.) I never told anyone (.) before the study started I never gave them an idea of how they should move

148 C11: Yeah.

149 R: I just wanted the sound:: to inspire it.

150 C11: Right.

151 R: And so (.) I think that's really fascinating to me, that so::me of the movements, like that big punch gesture, are (.) do: seem to be relatively universal

152 C11: Yeah.

153 R: that everyone wants to represent

154 C11: Right.

155 R: in som::e way.

156 C11: Yeah.

157 R: And so they must be feeling it and hearing it in a similar way (.) that they would do the same (0.5) mm hmm.=

158 C11: =Exactly.

159 R: Yeah (.) and for me it's about giving conductors like (.) these little tools:: to use in their tool belt, so that when they do hear different things (.) in maybe a different march, or in another piece (0.5) then they would have something to do there.

160 C11: Right.

161 R: Yeah (.) just kind of giving them the tools to know what to do [laughter] um:: (.) great. In creating these emblems that occur in um:: (.) key sound moments, do you think:: about your movements as having different dimensions? An::d by that I mean (.) like the x dimension, which would be back to front, or front to back [moves in the described manner] and the y dimension which is like (.) right to left [moves in the described manner synchronized with the directions] and the z dimension which is up and down. [Moves in the described manner synchronized with the directions]

162 C11: Yeah.

163 R: So do you think about your movements as having those?

164 C11: Yeah, definitely (.) an::d when they were like the (.) smaller gestures, it would be more about (.) um:: (.) kind of being more up [brings right hand in vertical upward movement showing the z dimension] while the glides would be (.) spread out more this way. [Separates both hands in a horizontal movement showing the y dimension]

165 R: Mm hmm.

166 C11: Um:: (.) I think (.) my:: gestures are more this way [moves hand to the right] and this way [moves hand up] rather than out

167 R: Ah::.

168 C11: but (.) I found sometimes when I really wanted them big, then I would come out wide. [Extends arm out when describing the moment]

169 R: Yeah (.) so more (.) you would be (.) feeling like you were using more of the y and z dimension and

170 C11: Yeah.

171 R: not as much as the x?=
172 C11: Yeah.

173 R: Mm hm (.) yeah I think um: (.) it's good to know, like where we move, and how that might change with the sound changing=
174 C11: =Yeah.

175 R: and where you might want to be for different sounds

176 C11: Right.

177 R: for sure (.) especially with like, different timbres of soun::ds and such (.) for sure (.) good. I'll give you a couple situations, and you:: give me:: kind of a way that you might mo::ve to reflect that. So if the sound is rising up in pitch, what action might you do?

178 C11: I would also rise definitely.

179 R: Yeah (.) yeah (.) me too. If the sound is falling the::n would you do:: the reverse of that?

180 C11: Yeah.=

181 R: =Yeah (.) and if the sound is light and sudden, or quick like this, ba da deet (.) ba da deet. What might you do?

182 C11: I would have it up and tight.

183 R: Yeah (.) mm (.) yeah (.) very key. If the sound is strong and sudden like that bass drum (.) boom, or cymbal crash let's say, what might you do?

184 C11: I would do a (.) punch and kind of (.) downwards
185 R: Mm::.
186 C11: with the punch (.) yeah.=
187 R: =Digging in?
188 C11: Yeah.
189 R: Ah, that's good (.) and um: (.) do you think about these moments as:: emblematic moments as having shape to them?
190 C11: Yeah, definitely.
191 R: Mm hmm.
192 C11: I think you could literally draw out [chuckle] what the shapes are (.) that we do with our gestures.=
193 R: =Yeah (.) you can, right (0.3) and on my little program that I like to analyze with (.) we can like (.) highlight the tip of the baton, and then (.) we can trace
194 C11: Right.
195 R: like, the sort of, what you're doing in the air::, right?
196 C11: What path I was doing?=
197 R: =Yeah (.) which is kind of cool because (.) yeah, they definitely (.) all have some kind of shape to them.
198 C11: Right.
199 R: Good (1.0) salience is important in my study (.) that is um:: (.) a gesture or sound that stands out relative to its neighbour sounds (0.5) so this idea of salience is (.) sort of (.) a major:: sound moment that's really standing out because of what happened before and after it was so much different.
200 C11: Okay.
201 R: So do you think about this notion of salience (.) that a (.) how a conductor can (.) sort of (.) us::e it (.) to his or her disadvantage? Or do you think that conductors use this notion of salience to their advantage?
202 C11: Yeah definitely (.) I think the gestur::e (.) um:: (.) is very distinctive in those periods of time where something really changes so if there is one moment where it's really loud or where one moment is (.) where it's really softer or where it's a stronger articulation (.) than (.) that's shown and that's (.) probably the point where (.) the musicians are really (.) paying attention more so than when (.) everything is kind of just going smoothly and it's the same.
203 R: Uh huh (.) yeah (.) good point (.) cuz (.) I think that's something I also wonder about is like, what moments (.) do musicians (.) especially maybe let's say at the university level, really (.) key into looking at the conductor, right?
204 C11: Yeah.
205 R: So (.) those where the, those are the type of moments wher::e people (.) I think (.) learn to have their eyes up
206 C11: Yeah.=
207 R: =and watch and (.) and rather than just kind of being in the music.
208 C11: Right.=
209 R: =Yeah:: that's a good point. Do you think your movements (.) are:: (.) spontaneous and occur directly in the moment? Or do you think there are times when you: (.) think ahead to the, to the (.) in your mind (.) to the movement or pre-plan your actions, or both?
210 C11: I (.) often try to pre-plan my actions, but in this study it was very in the moment (.) because I never knew what was going to happen. [Laughter]
211 R: Nice [laughter] that's good. Yeah I think um:: (.) for me I'm very Type A, I like to plan out what I want to look like (.) what it's going to be::, what I'm going to do::
212 C11: Yeah.
213 R: and then I realize (.) like from working with the operettas or whatever (.) that sometimes things happen and you just have to abandon:: your plan and go:: to make a change
214 C11: And just go for it.
215 R: and look at something
216 C11: Right.
217 R: adjust with the musicians because something changed that had never been done before, and then (.) it becomes very spontaneous and so::
218 C11: Yeah.=
219 R: =um (.) you get better at dealing with that (.) uh:: (.) as a sort of um:: (.) it doesn't feel as stressful
220 C11: Right.=
221 R: =to have to cope in the moment when you get (.) more use to that. I think for me that's a bit of experience (.) and then just being use to that happening.
222 C11: Yeah.
223 R: Yeah (.) which can happen in rehearsal or in concerts too, or performances.=
224 C11: =Exactly. [C11 and R laughter]
225 R: It makes li::ve (.) I think that's for me, what makes live music (.) important.
226 C11: Yeah.=
227 R: =Yeah.
228 C11: So much spontaneity.

229 R: Oh yeah (.) and that's also, I don't know how (.) what your family and friends thought when they came to um:: (.) different versions, let's say if they came to different nights of the *Cinderella* let's say...

230 C11: Yeah.

231 R: like um:: (.) it could (.) they know (.) by coming (.) what, what's to be expected, and they might know your part (.) um:: (.) but then (.) also seeing different nights of it (.) could be different feelings.=

232 C11: =Yeah, definitely.

233 R: The audience reaction might be (.) a really vibrant one night and kind of dead the other night, but you played and sang the same way but=

234 C11: =Yeah. [Laughter]

235 R: but in a way.

236 C11: Yeah different reactions.

237 R: Yeah (.) good (.) um:: (.) in this, if the sound moment in more sustained and has (.) notes that ascend up to a light last note, like (.) um (.) uh:: (.) [demonstrates sound using voice] how might you move?

238 C11: I would continue upward

239 R: Hmm.

240 C11: and then with a really (.) light gesture.

241 R: At the top?

242 C11: Yeah.

243 R: Mm hmm (.) good (.) excellent (1.0) so:: um:: (.) the second part of this interview would just be to ask about your thoughts about these little accuracy tests

244 C11: Oh okay.

245 R: so (.) I'll go through:: um:: (.) what you think about each of the parts

246 C11: Okay.

247 R: yeah (.) and get your thoughts. So (.) let's see (.) um:: (.) I don't have what your actual accuracy test scores were yet, cuz I'm still putting them in::to

248 C11: Okay.

249 R: the computer but, do you think your score improved:: (.) um:: (.) from the first test to the second test you had to do?

250 C11: I hope so. [C11 and R laughter] I found the second test (.) I wasn't (.) as, like the first test, my brain hurt, afterwards.

251 R: Yeah [laughter] good point.=

252 C11: =And the, and the second ti::me, I was like o::kay, I can probably do one more of those and be okay. So I think

253 R: Yeah.=

254 C11: =more just (.) maybe not so much: um:: (.) I'm not sure if the answers were different, but the:: ability to do it, and watch it, and not be so stressed about it

255 R: Like ah::...

256 C11: was better (.) yeah.=

257 R: =Yeah.

258 C11: Maybe just knowing what was coming too, because I had seen all the parts before.

259 R: Yeah::, and you had done it before.=

260 C11: =Yeah.

261 R: Yeah, good point (.) absolutely. [Laughter] Um:: (.) uh:: let's see (0.5) um:: (.) oh: (.) in the middle (.) with some of the conductors I had them do a little:: um:: (.) conducting these marches with those moments in them

262 C11: Right.

263 R: and they had to:: do:: the four excerpts with the musicians, and then um: (.) get some coaching from me. If you would have that be part of this, do you think that would have given you an advantage for the:: second test?

264 C11: I think so cuz I would of seen from you as well what (.) um:: (.) a more professional conductor (.) would have done in some of those moments

265 R: Right.

266 C11: and then I would have (.) been abl::e to connect thos:e two thoughts together.

267 R: Yeah, yeah, exactly (.) yeah, and it's interesting like at the start (.) the musicians (.) the conductors I think had a slight advantage (.) for the first test because they had heard the sounds before

268 C11: Yeah.

269 R: but the musicians never had.

270 C11: Right.

271 R: And so I was wondering how their brains hurt after that

272 C11: Yeah.

273 R: cuz they were (.) they didn't even know the sounds or had, or had any familiarity with those sounds if they hadn't played those marches before.=

274 C11: =Yeah (.) and that definitely helped me:: too because I know I'd like (.) thought of gestures in my head (.) in my head when I ha::d conducted them before

275 R: Yeah.

276 C11: so then when I heard the sounds:: (.) I was kind of thinking of what I:: had do::ne and how that reflected on the screen, so::...

277 R: Yeah:: yeah, to (.) to make a connection=

278 C11: =Yeah.

279 R: if you (.) oh: yeah, I did something like that, that might be the one.

280 C11: Right. [Laughter]

281 R: Yeah (.) absolutely, if there's any way we can make connections I think (.) if you've produced the movement before (.) you have a good chance of being able to make a connection to someone else's movement that might be similar.

282 C11: Yeah.

283 R: Mm hmm (.) good. So in Part One, you had to listen to three:: um: (.) sounds and watch one video (0.3) or you had to watch one video and listen to three sounds. In that one, which one was the easier one for you to do?

284 C11: It was easier to watch the video first

285 R: Yeah?

286 C11: and then hear the sounds::.

287 R: Yeah.

288 C11: Yeah cuz I even kind of, with my hands, doing the gestures that they did and then:: (.) when you heard the sound you could connect the two dots.

289 R: Yeah:: (.) good, and then in Part Two (.) you had to watch three videos and then listen to one sound, or listen to one sound and watch three videos (0.5) which one:: did you like in that case?

290 C11: Once again the second:: (.) cuz then I would sing:: the sound through my head

291 R: Hmm::..

292 C11: as all the videos came up.

293 R: Okay (.) yeah, good point, good point (.) and then Part Three, you had to uh:: (.) watch three different audio:: and video:: combinations and select the audio (.) um: (.) gesture number:: that made the most auditory and vis::ual sense (0.5) which one:: uh:: no, not which one, but describe to me:: (.) um: (.) what you thought about that?

294 C11: I found that a little bit easier than the other ones:: because they were connected, and

295 R: Yeah.

296 C11: sometimes it was more obvious

297 R: Mm hmm.=

298 C11: =than other ones if they didn't work well together. (1.0) Those ones I:: definitely I only like (.) kind of needed to see once (.) to get it (.) answered

299 R: Yeah.

300 C11: while the other ones I might have needed to (.) see or hear a couple more times.=

301 R: =Yeah.

302 C11: But, I'm not sure if that's reflected:: in:: [C11 chuckle]

303 R: In your score?

304 C11: in my test

305 R: No:: it's okay.

306 C11: but:: I found like (.) I had more of a gut reaction:: to it

307 R: Mm hmm.

308 C11: rather than having to really like analyze like the other one.

309 R: Oh::.

310 C11: The other ones it was more (.) thinking about it, this one was just

311 R: A lot more natural.

312 C11: laidback (0.3) yeah.

313 R: Yeah (.) good points (0.3) yeah (.) good (.) excellent (2.0) good. So:: I just have a couple more things (0.5) in concert performance (.) there's this funny paradox that I observe a lot, and I just want to get your thoughts on it. So there are sort of two scenarios (0.5) the first scenario is (.) um:: (.) the:: gestural landscape is very expressive and beautiful (.) that the conductor is doing with affective qualities, yet the ensemble is pretty bland and boring.

314 C11: Okay.=

315 R: =Okay, that's one (.) and:: um:: (.) the other one is where the ensemble is (.) playing so beautifully with phrasing:: and shape and affect and, and you know, time and amplitude changes and dynamics::, yet the conductor is bland and boring (.) and ba::sically doing a beat pattern.

316 C11: Right.

317 R: So (.) what do you think about (.) what's going on with those two?

318 C11: I think (.) probably there's n::o, like there needs to be a happy medium almost (0.5) because:: I think the conductor can't be doing (.) so: much that the:: (.) musicians feel like, oh: I don't have to do anything (.) he's doing all the work up there, but then there's (.) I'm actually surprised by the other one (.) because I feel like if the conductor's really bla::nd then (.) the musicians often times (1.0) and the problem might be more that I'm thinking more about choir

319 R: Mm hmm.

320 C11: cuz that's where all of my experience is.

321 R: That's good (.) talk about that, that's good.=

322 C11: =But um:: (.) whenever I have had conductors tha::t are really bland and just keeping the beat, it's like we have nothing:: to work fro::m

323 R: Yeah.

324 C11: so:: we often don't have expression in those cases.

325 R: Hmm.

326 C11: But um:: (.) in the scenario your explaining, it might be just that (.) if the musicians are maybe more well trained and then they're taking from the music

327 R: Hm::.

328 C11: more what they need

329 R: Mm hmm.

330 C11: and the conductor's just there as a time keeper.=

331 R: =Mm hmm (.) yeah yeah, good point (0.3) and my:: little um:: (.) second example, it was more::, I was thinking more in the (.) the wind band concert band tradition, where the conductor doesn't do much

332 C11: Oh, okay.

333 R: and the:: ensemble plays (0.3) but I'm really glad you brought up the choral aspect because, when your voice is your instrument (.) the:n you rea:lly want to see some shape coming out of the conductor like...

334 C11: Yeah:: you need some expressivity.

335 R: Yeah, and I like the way you described it, it's like saying (.) that um:: (.) the conductor's expression is like a canvas or something to work from.

336 C11: Yeah.

337 R: Yeah (.) you have to kind of go for it with:: them

338 C11: Right.=

339 R: =and to see something and (.) yeah, cuz I think choral conductors (.) in my own experience, are wa::y more expressive than wind band conductors

340 C11: That's very true.

341 R: and I (.) wonder why?

342 C11: And I think part of that too is that they don't have a baton in their hand most of the time.

343 R: Yeah::.=

344 C11: =So their fingertips and everything become, like and I know (.) band conductors do have one hand=

345 R: =Yeah.

346 C11: but I feel like both the hands then are working together (.) and fingertips and wrists and everything become (.) mo::re part of the story.

347 R: Mm hmm (.) oh yeah (0.3) absolutely (0.5) yeah, and I think some (.) wind band conductors could really u::se to work with choirs (.) and uh:: and get some experience

348 C11: Yeah.

349 R: because (.) perhaps when the (.) band music is more expressive they may be (.) called to put down their baton and do something really beautiful

350 C11: Yeah.

351 R: or even um:: (.) do something with their (.) left hand that they would have never done before=

352 C11: =Right.

353 R: that's really reflecting the sound.

354 C11: Yeah.

355 R: Because in choral music (.) um:: (.) yeah, there's so:: much more expression in the:: multimodal sort of communication that, that does occur.

356 C11: Yeah.

357 R: Yeah (.) and I think more of the breakdowns occur in, in the instrumental side and I'm not really sure (.) why, but I think you made a good point about having your hands:: (0.5) as a tool (0.5) and really (.) being able to use your fingertips and wrists and (.) just play around that way (.) more three dimensionally

358 C11: Right.

359 R: perhaps and more than, you would with just a baton.

360 C11: Yeah.

361 R: Uh huh (.) yeah, that's good (0.3) excellent, and uh:: (1.0) for the study (.) um:: (.) has the study improved your own connection between (.) elements of musical expression found in the score, and (.) or moments that you choose to convey?

362 C11: Yeah, I think there's things I did in the moment that I could probably now pull into my (.) planning.

363 R: Yeah. [C11 and R laughter] Nice.

364 C11: That I would have never thought of before when I was planning stuff out.=

365 R: =Good.

366 C11: So::: there's moments that

367 R: Yeah.

368 C11: I can take from that.

369 R: Yay (.) and um:: (.) based on your participation in this study, if I were to run it as a course:: let's say after you'd done your two conducting classes, if I were to run (.) sort of (.) a motion capture sort of um:: (.) you know, kind of a class (.) like what you did, but in a more long term

370 C11: Yeah.

371 R: type of thing (0.5) um: (.) would you recommend other students to (.) to be involved or to gain that kind of experience?=
 372 C11: =Oh definitely (.) I: (.) especially if you are going to go into:: conducting or some aspect of it, because (.) even the two classes you take there's not (.) um:: (.) it's not enough really, you need more (0.3) and also this would (.) break down (.) the actual body of it a bit more for people to see

373 R: Mm hmm.

374 C11: what you're doing (.) and I don't, you (.) rarely get to see:: yourself in that kind of way, like...=
 375 R: =Yeah.

376 C11: we do get videos of it when we're in conducting but

377 R: Mm hmm.

378 C11: you see your face, and you see all those expressive elements and now (.) you can just see what (.) simply your body is doing with them

379 R: Uh huh (.) yeah.

380 C11: as well, so...

381 R: Yeah (.) which is nice, like and (.) like (.) you get a good foundation for a pattern and how to display this:: and the tempo and everything that you need to be (.) um:: (.) thinking about that (.) then the next level would be how to show some of these expressions

382 C11: Yeah.

383 R: which I think are valid for both choral and instrumental people or pits, or

384 C11: Right.

385 R: or orchestra:: or whoever (0.5) but (.) yeah, it's kind of a next level to get to in your own (.) expression (.) as a conductor (.) and especially like you said, if:: you're going to be working with groups it's really good to (.) kind of get some ideas on (.) how to:: (.) try to get these things to happen, right?=
 386 C11: Yeah. [C11 and R laughter]

387 R: Definitely (.) um:: (.) do you uh:: (.) or how has this (.) study changed your understanding of conducting?

388 C11: Probably what we were talking about with spontaneity, but

389 R: Hmm.

390 C11: that you do have to be open::n to try new things in the moment, and

391 R: Hmm.=

392 C11: =see what works for you.

393 R: Good (.) good (.) and um:: (.) do you consider yourself (.) after having to do these mind boggling gesture matching tests, do you consider yourself a better observer:: of these::e sort of emblem: gestures?

394 C11: Yeah I think so:: (.) I think I would (.) read (.) maybe what the conductors did (.) in a different way::.

395 R: Hm:: (.) and be able to respond.=

396 C11: =Yeah.

397 R: Good (.) and (.) if, if you were::e, I think I may have asked this prior but (.) um:: (.) if I had (.) selected you to do the coaching session (.) and:: um:: (.) to get that (1.0) uh:: as part of it (0.5) and also to review some of these conductors, like their longer excerpts, like the stick guys...

398 C11: Yeah.

399 R: if I had you reviewing them, do you think that um:: (.) that would have (.) increased your capability to match these gestures?

400 C11: Oh yeah, I'm sure (.) yeah.

401 R: Okay (.) and do you:: consider yourself more capable to communicate phrasing (.) now?

402 C11: I think I'm still awful but... [Laughter]

403 R: Honesty is good. [Laughter] I know, it's something that takes time to

404 C11: Yeah.=

405 R: =develop, right? An::d um:: (.) one thing I really learned from some of my mentors (.) when I was doing my Masters in this, um:: (.) was (.) he made me tape uh:: (.) some of my mentors, they made me tape every rehearsal, and (.) it was so painful to go back and watch those videos (0.3) but at the same time, I learned a lot about, oh:: (.) that looked good::, that really fit with the music and, that was kind of dumb, why did you do that? That didn't make any musical sense or::...

406 C11: Yeah.=

407 R: =or (.) or (.) that was just like (.) flowery extra that really didn't need to be there

408 C11: Right.

409 R: or:: like (.) you say, oh: yeah okay, that was good
and, I should try that again or (.) or look at, no that
was ridiculous and I should never do that again (.)
so::....
Yeah.

410 C11:
411 R: you learn a lot from watching yourself (.) for sure.
412 C11: Right.
413 R: Mm hmm.
414 C11: And if this was done as a course too:: and:: (.) you got the time do:: more:: like longer phrases
415 R: Yeah::.
416 C11: or longer snippets of the music
417 R: Yeah.
418 C11: then:: I think that would help with (.) me (.) feeling that I:
419 R: Mm hmm.
420 C11: express more musical
phrasing.

421 R: Oh absolutely.=
422 C11: =Yeah.
423 R: Yeah absolutely (0.3) if you had the context of the full musical line
424 C11: Yeah.
425 R: not like a four second clip=
426 C11: =Right. [C11 and R laughter]
427 R: or two to three second clip (.) yeah no, I agree entirely. (0.5) Um:: (.) do you:: ha:ve uh:: (.) do you consider yourself um: (.) more
capable to reflect the dynamics:: and articulations?
428 C11: Yeah I think:: that was one of the things actually in my:: (.) um:: (.) conducting:: that (.) if things were too small and I wasn't getting
big enough, and I tri::ed to incorporate that mor:e (.) throughout this
429 R: Mm hmm.
430 C11: to:: really show the different sizes of things.=
431 R: =Yeah.
432 C11: So I'm hoping I:: [laughter]
433 R: That's good (.) well...
434 C11: did that a bit more.
435 R: it's bringing it to I think an awareness
436 C11: Yeah.
437 R: that you can do that, right? And um: (.) do you
feel coming into the motion capture lab and
participating in this has (.) changed the way you
think about your mov::ements in theses (.) key
sound moments?

438 C11: Yeah, that was a really cool experience I really liked coming in and taking part in that
439 R: Even (0.5) o::kay (1.0) aweso::me.=
440 C11: =um:: (.) but (.) yeah, like I said (.) with me I have a really, I didn't (.) in this
441 R: Mm hmm.
442 C11: but I usually have a really expressive face in my
conducting and that's what I kind of rely on.

443 R: Yeah.
444 C11: So that this:: it made me:: think about, okay (.) my face isn't involved, what can my body do?
445 R: Yeah.=
446 C11: =So:..
447 R: Yeah, good (.) and I think it's (.) um: (1.0) it's such a: (.) I think it's really:: hard to teach people to be expressive in their face if they
don't have that
448 C11: Right.
449 R: and it's not so: hard for me (.) in my experience (.) to teach people how to be expressive with their body (1.0) because something
(.) I don't know why, what it is (0.5) if the face is just so: persona::l:: you're just (.) so into the music (.) and um: (.) but it's always,
it's hard:: for people (.) when they have a tight jaw and a tight face and they're so serious, an::d the music is not so serious and their
face is just so serious
450 C11: Yeah.
451 R: to get them to smile:: and relax::
452 C11: Right.
453 R: and coach them through:: you know (.) open your mouth, relax your jaw,
smile

454 C11: Yeah.
 455 R: are you having fun?
 456 C11: [Laughter]
 457 R: Is the music fun? Um:: (.) you look (.) constipated (.) like I mean (.) or something, an::d but (.) I think it's (.) easier to coach people to be more graceful (.) with their movements (.) than their face so: (.) if you (.) if you um:: (.) if you can transfer:: that (.) in too, because both are very powerful.
 458 C11: Right.
 459 R: Mm hmm (.) and I think (.) uh, one thing I used to get into so much trouble with is (.) having (.) too expressive of a face and too expressive movement, so it was double (.) a double whammy right?
 460 C11: Right.
 461 R: But then I sort of started to learn, and I'm still learning (.) times where:: I'll just be (.) expressive with my face only and not my body, or with my body only and not my face (0.5) or sometimes in the moment where I really want it, with both.
 462 C11: Right.
 463 R: But to recognize there's (.) a power in using both (1.0) but it can be really powerful
 464 C11: Yeah.
 465 R: and uh:: and good (.) if, if you need to do it
 466 C11: Right.=
 467 R: =um:: (.) but not always to do it (0.5) so it's a::n it's a::n (.) interesting balance (0.5) but that's something that I've always (.) out of feedback from musicians they'll always say, "oh she had a nice face, you could tell that she was in the music, and she was encouraging us" and (.) um:: (.) one lady said uh, "a lot of times people don't know anything about conducting, but if you're (.) happy and, and you're engaged, and you seem into the music" then the musicians read that, right?
 468 C11: Right.=
 469 R: =And (.) they make a connection with you (.) and so they, and they feel (.) welcome and happy and:: I don't know...
 470 C11: Yeah.
 471 R: it just breeds a good environment for making music.=
 472 C11: =Makes you feel connected.
 473 R: And um:: (.) if you have a too serious of a face in happy music, for example (.) people (.) often are confused
 474 C11: [Laughter]
 475 R: like is she ma::d?
 476 C11: Which one am I supposed to be doing? [Laughter]
 477 R: is she (.) sad::? So: (.) I don't know what, it's just (.) something going on today.
 478 C11: Yeah.=
 479 R: =Is she having a bad day? Or yeah (.) it's weird what people can read.
 480 C11: Right.
 481 R: Yeah (.) and I know, it's funny (.) I had this one moment (.) with um: (.) another conductor in, in one of her sessions (0.5) and I took away the score, cuz she was just looking down at it (0.5) so then she told another conductor in the hallway before his session, "she takes away your score." And it was so: cute but, the only reason why I took away her score was to get her head up
 482 C11: Yeah.
 483 R: and her face up (.) and to be looking at the musicians
 484 C11: Right.
 485 R: and not the score (.) and um:: (.) and then when she did that (.) it was just a totally different (.) communication.
 486 C11: Yeah::=
 487 R: =Right cuz she had her face involved, and um: (.) and everything, an::d (.) her body looked great. So:..
 488 C11: Yeah.
 489 R: it was funny, b:::ut I thought what was even more funny it that (.) before the other conductor's turn, cuz she was giving him the tips like (.) "be ready, she takes away your score." [C11 and R laughter] And in one of his moments I don't know if he told you but (.) um:: (.) I was trying to get him to do this sort of (.) this kind of gesture. [Demonstrates a downward stroke geture]
 490 C11: Down?
 491 R: Down on the music like, and I told him, think about you're stroking a cat
 492 C11: Yeah.
 493 R: you know (.) like, oh:: yeah you like the cat
 494 C11: [Laughter]
 495 R: you know, it's a nice cat. So I was trying to get the face and the body doing.=
 496 C11: =Yeah.
 497 R: And so (.) we got to the music of that moment and he had this s::mile like, and I mean (.) he did this [demonstrates the gesture] with the biggest grin (0.5) and then um:: (.) everybody, all the musicians giggled and laughed so hard we had to stop the excerpt.=
 498 C11: =Oh:: gosh. [Laughter]
 499 R: But if, if I had whispered that in his ear:: and then:: told him to do it
 500 C11: Right of course (.) yeah.=
 501 R: =the musicians wouldn't have known the analogy, and then::

502 C11: Right.
 503 R: or metaphor, whatever it is (.) and then they wouldn't have (.) um:: (.)
 laughed because it would have made sense to the musical line
 504 C11: Right.=
 505 R: =but because we knew what he was thinking and he did this like eyebrow thing and a smile (0.3) and then we all cracked up.
 506 C11: It was funny (.) yeah.
 [Laughter]
 507 R: I was just telling him the (.) the power of the face is so amazing, right?
 508 C11: Ri::ght.=
 509 R: =But you take that away and (.) to be able to do it in your movement too is really important.=
 510 C11: =Yeah.
 511 R: Yeah (.) well thanks for your thoughts a::nd
 512 C11: No problem.
 513 R: your time and energy and valuable insights. It's been a pleasure working with you a::nd
 everything so (.) um: (.) if you have any final thoughts you can put them in but..
 [Laughter]
 514 C11: That's good. Thank you so much for the experience, it was great.
 515 R: But yeah (.) yeah:: I appreciate it [laughter] and thanks for coming
 516 C11: And good luck.
 517 R: in and talking about your thoughts:: and
 518 C11: No problem.=
 519 R: =and everything for making time (.) cuz I know you guys are busy and...
 520 C11: That is per::fectly fine. [Laughter]
 521 R: Good luck on your exa:ms and everything and your last week of classes.
 522 C11: Thank you:: (.) good luck with this. I'm looking forward to hearing all about it.
 523 R: Oh yeah:: it'll be something alright. [Turns off the recording devices]

Conductor Twelve

- 1 R: [Starts the recording devices] Oka:y, perfect, we're up and running. So, um: (.) I just wanted to say thanks for coming (.) and the purpose of today is to just to get your thoughts on all of our sessions together, and how you felt that it wa::s and the things you were thinking about, and what you learned from being part of this PhD study, so...=
- 2 C12: =Okay.
- 3 R: And (.) um: (.) so tell me your name in full.
- 4 C12: Okay my name is um: _____ yep.
- 5 R: And how old are you?
- 6 C12: I'm twenty.
- 7 R: Good.
- 8 C12: Turning twenty-one soon.
- 9 R: Oh okay great (.) excellent, and you're studying here um: (.) at the University of Calgary as an undergraduate student?
- 10 C12: Yep.
- 11 R: And what is your field of study?
- 12 C12: Um: (.) I'm studying i::n BA Music uh (.) second year.
- 13 R: Second year, perfect, a::nd um: (.) you're in: second year good (.) okay (.) great, and have you taken um: (.) any of the conducting classes here yet?
- 14 C12: No, not yet, but I think that I plan to.
- 15 R: Good, that would be great. Uh (.) have you ever taken any private conducting lessons with anyone?
- 16 C12: No.
- 17 R: Okay, good. Yeah, in my study normally people haven't yet before, so that's important. I always ask just to double check that people um: (.) haven't had more (.) study than I know about. [Laughter]
- 18 C12: Yep. [Laughter]
- 19 R: Great (.) and um: (.) had you ever conducted any of these four march excerpts before this study?
- 20 C12: Nope.
- 21 R: Perfect, and had you ever performed as an ensemble member in any of those marches, like on stage?
- 22 C12: Um: (.) just choir.
- 23 R: Sang in choirs?
- 24 C12: Yeah, sang in choirs.
- 25 R: Oh great, and (.) what factors influenced your decision to take part in the study? Was it when I came down to your class and showed you the computer of the little uh (.) gestures?
- 26 C12: Uh actually, I was interested in conducting before.=
- 27 R: =Yeah?
- 28 C12: Yeah because one of my vocal teachers is a conductor
- 29 R: Yeah.
- 30 C12: so, I think it's very interesting=
- 31 R: =Yeah.
- 32 C12: so I saw your e-mail, and then you showed me the e-mail things so...
- 33 R: Yeah and then you connected with it?
- 34 C12: Yeah.
- 35 R: Oh great, well I'm sure glad you did. [Laughter]
- 36 C12: Yeah.
- 37 R: And um: (.) what uh (.) of the gestures in my study, we had sort of a strong (.) press gesture a lot of people did, we had kind of a gliding gesture
- 38 C12: Uh huh.
- 39 R: and we had a kind of a dab gesture and we had like a punch gesture
- 40 C12: Yeah.
- 41 R: out of those gestures, what is was the easiest for you to do?
- 42 C12: (1.5) I think it's the punch (.) the punching one.
- 43 R: Mm::.
- 44 C12: Yeah?
- 45 R: Yeah.
- 46 C12: So it's the bass and then it's yeah it's strong, right?
- 47 R: Yeah, strong, and how about the trickiest one to do, the hardest one perhaps?
- 48 C12: U::m: (.) maybe I think it's sometimes I don't really know the rhythm.
- 49 R: Yeah.
- 50 C12: Yeah, so I thought (.) that because there was like two (.) of the same ticks, but they were two different version of it
- 51 R: Yes: (.) ye:s.=
- 52 C12: =so sometime I got mixed up with the rhythm.

53 R: Yea:h, sure (.) sure absolutely (.) and which of the um: (.) in my study, I guess we talk about: this notion of tracing a soundscape or the musical contour a:nd um: (.) do you feel that your movements when you were in the motion capture lab were drawing the soundscape?

54 C12: Yep (.) yep.

55 R: Great yeah, and u:m: (.) and also, when you were, when they were all mixed up on you, when I randomized the sounds, what were you kind of thinking then?

56 C12: Um: (.) I, I need to like listen (.) carefully and (.) and recognize which one is which one.

57 R: Yea:h yeah, really keying into what one it was, and then what you might want to do with it?=
58 C12: =Yeah, some of them are just a little bit different, so...
59 R: Yeah, not too different, but a little bit different.
60 C12: Yeah.=
61 R: =Yeah, absolutely (.) and u:m: (.) something I've been really thinking about is why: some gestures are really (.) are good for a number of sounds? (.) So (.) the gestu::re can fit with many sounds.
62 C12: Yep.
63 R: What would you, what are your thoughts about that? Why that might be:, or...?
64 C12: Yeah, yeah it was so confusing too, but (.) yeah because some of them are like (.) um: (.) they (.) they both have some (.) bass sound and it's like strong.
65 R: Yeah.
66 C12: So I thought it's (.) yeah it's (.) similar, it could fit with both.=
67 R: =Yeah (.) a similar movement might go with that?
68 C12: Yeah.
69 R: Yeah, good point (0.5) I like what you said abo:ut (.) the listening to what the bass is doing that might dictate how strong your movement would be and if the bass was similar then you might do a similar movement.=
70 C12: =And you thought it would be (.) both of them
71 R: Yeah (.) excellent (.) and um: (.) what are some properties or elements of sou:nd that change frequently, that changed a lot (.) that might require (.) an action to encourage them, so (.) what are some things in sound that changed that (.) our movements might want to (.) show?
72 C12: Um: (.) it can be the rhythm, and (.) loudness an:::d (.) what else? (0.5) Um: (.) the colour tone I think yeah-yeah.
73 R: Mm:: the colour of the (.) sounds? Oh yeah, that's a really interesting one.=
74 C12: =Yeah.
75 R: Yeah, for sure I can make an immediate connection to the: dynamics and the the um: (.) loudness of it for sure (.) but I like the timbre idea because that (.) is (.) something people don't think about reflecting, but it does change a lot, doesn't it?
76 C12: Yeah.
77 R: Mm hmm (.) yea:h go:od (.) excellent (.) and um: (.) do you think that some of our gestures are strongly linked or hardwired to particular sound moments? Li::ke i:f we:: if you hear (.) ba da dut, ba da dut, ba da dut, boom, and then you hear in another piece (.) ba da da da da deet, ba da da da da deet, ba da da da da deet, boom (.) would you be driven to maybe show it in a similar movement?
78 C12: Yeah.
79 R: Hmm.
80 C12: Because like the strong beat is (.) almost the same, so it's kind of similar.
81 R: Yea:h (1.0) yea:h (.) yeah and that's a good point on where the strength of the beat lies, would perhaps draw somebody to do a similar movement.
82 C12: Mm hmm.
83 R: Ah, that's go:od (.) yeah (.) in creating emblems that occur in these key sound moments, do you think about your movements as having different dimensions? The back and the front, the x (.) the y, which is the right to the left, and then the z, which would be the up and down.
84 C12: Mm hmm (.) u::m: (.) up and down, usually contains rhythm and then: (.) to side to side usually (.) I don't know maybe (.) you (.) I don't know I just do it like naturally.
85 R: Yeah (.) come out a bit?=
86 C12: =Yeah (.) come out a bit
87 R: Mm hmm.
88 C12: and u:m: (.) for the front and (.) back dimension would be like the whole body up, like (.) moving and...=
89 R: =Mm hmm.
90 C12: Yep.
91 R: Yea:h.
92 C12: It helps like (.) the gesture.
93 R: Yeah I think so, and it's good that you recognize that (.) you can use all these dimensions to make the movements.
94 C12: Yep.
95 R: And sometimes, u:m: (.) we see conductors get stuck in one little spot
96 C12: Yep.
97 R: and they need to come out mo:re, in more, up more, down more, out. [Laughter]

98 C12: Yep.

99 R: So it's good to know you can move in all sorts of ways depending on what the music is doing, right?

100 C12: Yep.

101 R: So (.) I'll ask you some (.) little (.) scenarios and you tell me what you might do with your hands or arms.

102 C12: Okay.

103 R: So in the, if the sound moment is rising in pitch, what action might you do?

104 C12: Um: (.) rising maybe giving upward movement (.) yep.

105 R: Yea:h (.) yeah and then the opposite if it's uh (.) falling in pitch, what might you do?

106 C12: Maybe smaller, slower movements.

107 R: Good, and then if um: (.) the sound moment is light and sudden like, ba da deet, (.) ba da deet [laughter] what might you do?

108 C12: Uh (.) do a small movement, just move a little bit.=

109 R: =Yep.

110 C12: Yeah.

111 R: Right on (.) and if the sound movement is strong and sudden like a bass drum boom, or a cymbal crash cshhh you know, how might you move?

112 C12: Yeah (.) like with the boom (.) yeah a bigger movement (1.0) yeah.

113 R: Yeah a bigger and stronger movement (.) good, and do you think about these emblems as having shape to them?

114 C12: Yeah.

115 R: Mm hmm.

116 C12: Yeah, I think so.

117 R: Mm hmm (.) yeah they definitely um: (.) I always talk about um: (.) this idea of the circle, you know, in a waltz (.) one two three, one two three, one two, and so on, but definitely they definitely have shape. (0.5) In my work (.) we talk about this word called salience, which is that a movement or a sound stands out relative to the sounds before and after it. So for example (.) like, the music is really strong and then all of a sudden it goes soft for a little bit, and then goes really strong after. So do you think that conductors use this idea of salience to their advantage?

118 C12: Um: (.) yeah, they do really um: (.) bigger and stronger gestures yeah.

119 R: Mm hmm.

120 C12: Yeah I think so.=

121 R: =And then when it goes quiet, and they immediately come down?

122 C12: Yeah, like (.) and yeah.

123 R: I know I think about that a lot that they really have to show the change.

124 C12: Yeah.=

125 R: =Yeah, in that moment.

126 C12: Yeah.

127 R: Mm hmm, and do you think about your movements as being spontaneous and occurring in the moment, like when you were in the motion lab and you had to just react to the sound?

128 C12: Yeah.

129 R: Or do you think there are times when you think ahead and pre-plan your action?

130 C12: (1.0) Um: (.) actually I pre-planned my actions when I was listening from the computer.

131 R: Yea:h.

132 C12: Yep.

133 R: Oh good (.) I'm glad we talked about that. That you sort of (.) recognized (.) the fifteen minutes of listening before you kind of pre-planned your movements.

134 C12: Yeah yeah.

135 R: And then when we mixed them all up on you, did you think okay (.) that was the sound I'll try and do that movement there?=
136 C12: =Yeah.

137 R: So if I looked at all of your movements for the one sound, they pretty much would be similar on the one that you worked on, the ones that you worked out?

138 C12: Yeah.

139 R: Good, and in the um: (.) and when the moment is sort of sustained or (.) long and has (.) it ascends up (.) to a last note that is really short and light, like (.) ba da deet, ba da deet or something, how might you move?

140 C12: Um: (.) work on going up

141 R: Yeah.

142 C12: and then (.) and then stop.

143 R: Yeah, a little dab on the end and a little stop. Perfect, excellent, so now I wanted to talk briefly with you about these accuracy tests you had to do. [Laughter]

144 C12: Okay, yeah.=

145 R: =And get your thoughts about them, and I'll talk about each part, so...

146 C12: Okay.

147 R: In Part One you had to listen to three audios and watch one video, or you had to watch one video and listen to three audios. Which way did you prefer it to be?

148 C12: Uh (.) I preferred to watch it first.

149 R: Watch the one, and then hear the three?

150 C12: Yeah.

151 R: Yeah.

152 C12: Yeah.

153 R: Good, and then in Part Two you had to watch three videos and hear a sound, or you had to listen to the one sound and watch three videos, which way did you prefer?

154 C12: Listen to the=

155 R: =Listen to the one

156 C12: first, yeah.

157 R: Yeah, and (.) in Part Three you had to watch (.) three different (.) um: (.) audio gesture videos and select the one that made the most audio visual sense to you (0.5) describe to me what you thought about that?

158 C12: I think that's the easiest part.

159 R: Of all of it?

160 C12: Yeah (.) yeah because you (.) some of them like (.) it's really obvious it doesn't match.

161 R: Yeah.

162 C12: Yeah.

163 R: And then, you could pick out the one that did?

164 C12: Yeah.

165 R: Yeah.

166 C12: But some sometimes maybe like (.) you changed the sound and the rhythm, so it was a little bit tricky to figure out which one it was.

167 R: Yeah?

168 C12: Yeah.

169 R: Yeah.

170 C12: [Laughter]

171 R: Good, excellent. [Laughter]

172 C12: [Laughter]

173 R: Oh and then um: (.) I had [clears throat] (.) do you think that from the first test that you did, to the last one, that you improved?

174 C12: Yeah, I think I improved on the second one.

175 R: Yeah (.) just because you kind of knew how the test worked? =

176 C12: =Yeah.

177 R: Or you were more familiar with the sounds by then, or?

178 C12: And the movements. =

179 R: =Yeah.

180 C12: I could recognize some of them.

181 R: Yeah, you get kind of a connection between the sounds and the movements so you were recognizing them and were able to pick them out?

182 C12: Yeah.

183 R: Oh good (.) good, I always like asking people their thoughts about that.

184 C12: Yeah, okay. [Laughter]

185 R: [Laughter] And um has this uh (.) oh in my study uh (.) there is this funny thing that I observe a lot in concerts. (0.5) Two things, so I to get your thoughts on them.

186 C12: Mm hmm.

187 R: First one is the conductor's gesture is so beautiful and expressive, but the group is kind of singing bland, without much phrasing, (0.5) and then the opposite (.) where the ensemble is playing so: beautifully, but the conductor's not doing much expressively. So talk to me about what you think about those.

188 C12: Uh (.) I think like um: (.) for those where the conductor is like (.) just just conducting the rhythm because (.) I think because (.) some of the like (.) the ensemble people they're smart you know.

189 R: Yeah.

190 C12: Yeah, they know (.) what it is going to be.

191 R: Mm:.

192 C12: So, yeah they have the connection between the conductor and (.) by themselves.

193 R: Yeah.

194 C12: So I think they know (.) how to do it.

195 R: Yeah, without having to rely on the conductor doing it.

196 C12: Yeah.

197 R: Yeah, good point.

198 C12: But the other one, I think is like (.) the conductor would like (.) to remind them what they need to do and...

199 R: Yeah.

200 C12: Yeah, but yeah, but they still sing (.) softly and...

201 R: Yeah, and not really reacting.

202 C12: Yeah. [Laughter]

203 R: [Laughter] Yeah, and I think of course the best match is to have the musicians in tune with the conductor, and he or she can remind them as needed, and they can react, and um: (.) but like (.) I like your first point about (.) we can't (.) over do it because once the musicians know what they're doing, then if they're doing it, we don't necessarily have to show everything because the musicians are doing it.

204 C12: They know what to do.

205 R: Yeah, they know what to do because they've rehearsed it and mm hmm (.) and in my work um: (.) do you feel like um: (.) that the study (0.5) doing those motion capture sessions, improved your connection between the expressions in the music and your abilities to convey them, like these phrases, even though they were short?

206 C12: Yeah, it helped me too, yeah I I because before I didn't really count rhythm

207 R: Yeah.

208 C12: I just I just like (.) memorized the melody and then I just played it.

209 R: Yeah?

210 C12: And now I really got to count the rhythm.

211 R: Good, excellent (.) good, and um: (.) do you feel like um: (.) oh (.) if I offered this kind of this (.) kind of this experience as a class for a student to get credit for that, would you encourage your (.) you know (.) fellow students to do something like this?

212 C12: Yeah, sure because I really (0.5) you can learn something from conducting, because I didn't know anything before.

213 R: Yeah (.) which I think is kind of great that you did my study before taking your sort of technical pattern conducting class where you learn the patterns and the clarity of the beat, because now you're open to showing music in a different way, because you have to have both, you have to have the technical pattern that you can show the tempo and be clear about it, and then you have to have your other hand available to do these expressions and the phrasings, and so it's kind of neat that you did mine first, and then you get the technical after, but I think that's good because your mind is then, not set that it has to be (.) always a pattern.

214 C12: Yep.

215 R: Because a lot of people get stuck in this you know (.) pattern thing, and they forget that the music is still very expressive and you can do some things, so...=

216 C12: =Yep

217 R: Yay, so I'm so glad you were able to do it, and um: (.) do you feel like um: (.) you'll be able to use these ideas

218 C12: Yeah.

219 R: in your future hopefully?

220 C12: Yeah, yeah I think so, yes.

221 R: Good, and do you consider yourself a better observer um: (.) of these sort of emblems in these main moments, now that you had to watch these stick figures and connect it all?=
222 C12: =Yeah.

223 R: [Laughter]

224 C12: Yeah, yeah.

225 R: Good (.) excellent, and (.) um: (.) do you think that uh (.) that you: would have had even more of an advantage if I had brought you in um: (.) and made you work with the musicians and coached you through those emblems and then had you do the test the accuracy test after, do you think you would have had an even bigger advantage to take that second test, the second matching?

226 C12: Yeah, I think so, yeah.

227 R: Yeah, because I think that was the one thing that (.) if I ran it as a course I would really want to give students that opportunity, more to work out these things with the live musicians.

228 C12: Yeah.

229 R: Because in my study, you got to do um: (.) the uh (.) working with the motion capture sounds

230 C12: Yeah.

231 R: but you didn't get the live element, so I would like to give students more chances to work with that.=

232 C12: =Because like, the position of the drums, and yeah, it's slightly different, you have to...

233 R: Go to the person. [Laughter]

234 C12: Yeah.

235 R: You guy, I need you, no (.) I need you, wait a minute, I'm talking to you, yeah.=

236 C12: =Yeah.

237 R: No that's true, absolutely.

238 C12: Yeah.

239 R: So that's great, and um: (.) do you consider yourself more capable of experimenting with communicating the phrases and shapes with your gestures?

240 C12: Yeah.

241 R: Good (.), um: (.) um: (.) do you think that now (.) when you hear the sound, the loudness change, the dynamics change, and or articulations change (.) that you can try to reflect that now?

242 C12: Yeah.

243 R: Good.

244 C12: Yeah.

245 R: Excellent, and do you feel that um: (.) coming into the motion capture lab has changed the way you think about your movements in these sort of sound moments?

246 C12: Yeah, it has, because I didn't know anything before

247 R: Right.

248 C12: and now, like (.) um: (.) after I try it by myself, and then when we watched the video, I recognized those things and (.) found out um: (.) there is some idea for me to like (.) I have to come back to.

249 R: Yeah?

250 C12: Yeah.

251 R: Good, because yeah, in my, in my work I didn't really tell you like, okay you have to do it this way.

252 C12: Yeah.

253 R: And then you had to just try some things

254 C12: Yeah.

255 R: and then when you watched those um: (.) stick figure guys, you could get ideas=

256 C12: =Yeah.

257 R: and then try it again.

258 C12: Yeah.

259 R: So that's good (.) yeah, I feel like in teaching, too many times the teacher says, "no you have to do it this way" [Laughter]

260 C12: Yeah.=

261 R: =and then um: (.) and then the students don't make a connection to it, and then they just learn (.) that it's only one way, where it could be done many ways.

262 C12: Yeah.

263 R: Yeah, that's great, and um: (.) I (.) yeah, and I think it has changed, it changes the way that I think about the way that I move in these instances when they come up in my own work, so (.) that's great. Well, thank you for your time and energy and being a part of this. It was a pleasure to work with you (.) and meet you, and good luck in the rest of your studies.=

264 C12: =Thank you.

265 R: I'm sure we'll see each other around.

266 C12: Yeah.=

267 R: =I have one more year to type this all up [laughter] and to get everything printed

268 C12: =Okay.

269 R: and so thank you for your insights, it has been great working with you.

270 C12: It's nice, it was a nice experience.

271 R: Oh good [laughter] I'm gla:d, well like (.) coming into the lab with the motion capture, that's very um: (.) that doesn't happen with conductors very often, but I really think it's a fun way to teach conducting skills.

272 C12: Yeah.

273 R: But yeah, thanks for your time and thanks for coming in (.) thanks (.) yay.

274 C12: Yeah, good luck with you:r PhD degree.

275 R: Oh thanks. [Laughter] [Turns off the recording devices]

Appendix Z: Expert Panel Evaluation Mean Values

Conductor One (Experimental Group)

Conductor's Point-Light Expressivity (Gesture) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	2.750	3.232
Two	2.839	3.607
Three	2.661	3.196
Four	3.136	3.286

Ensemble's Expressivity (Sound) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	2.196	2.554
Two	2.911	2.764
Three	2.429	2.929
Four	3.071	2.804

Conductor's Emblematic Specificity (Gesture) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	2.875	2.982
Two	3.071	3.786
Three	3.089	3.786
Four	3.339	3.643

Ensemble's Emblematic Specificity (Sound) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	2.571	3.143
Two	2.696	3.357
Three	2.589	3.000
Four	3.036	3.607

Conductor's Kinesthetic Connection to the Ensemble's Auditory Result (Coarticulated Gesture & Sound) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	2.893	3.357
Two	3.071	3.643
Three	3.161	3.482
Four	3.054	3.554

Conductor Two (Experimental Group)

Conductor's Point-Light Expressivity (Gesture) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	2.714	3.464
Two	3.089	3.446
Three	3.071	4.000
Four	2.554	3.214

Ensemble's Expressivity (Sound) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	3.036	3.696
Two	3.339	3.429
Three	3.071	3.696
Four	3.125	3.196

Conductor's Emblematic Specificity (Gesture) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	2.882	3.196
Two	3.411	3.500
Three	3.161	4.125
Four	3.179	3.500

Ensemble's Emblematic Specificity (Sound) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	3.339	3.518
Two	3.339	3.357
Three	2.875	3.911
Four	3.214	3.375

Conductor's Kinesthetic Connection to the Ensemble's Auditory Result (Coarticulated Gesture & Sound) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	3.179	3.536
Two	3.482	3.982
Three	3.321	4.143
Four	3.429	3.768

Conductor Three (Control Group)

Conductor's Point-Light Expressivity (Gesture) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	3.161	3.339
Two	3.643	3.482
Three	2.625	3.250
Four	2.786	3.089

Ensemble's Expressivity (Sound) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	3.036	2.696
Two	3.464	3.000
Three	2.839	2.500
Four	2.661	2.964

Conductor's Emblematic Specificity (Gesture) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	3.107	3.250
Two	3.321	3.375
Three	3.125	3.536
Four	2.821	3.393

Ensemble's Emblematic Specificity (Sound) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	3.304	2.982
Two	3.125	3.143
Three	3.018	2.375
Four	2.732	2.929

Conductor's Kinesthetic Connection to the Ensemble's Auditory Result (Coarticulated Gesture & Sound) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	3.179	2.525
Two	3.018	3.304
Three	3.339	2.964
Four	2.857	3.125

Conductor Four (Control Group)

Conductor's Point-Light Expressivity (Gesture) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	3.393	3.143
Two	3.179	3.143
Three	2.750	3.036
Four	3.125	3.304

Ensemble's Expressivity (Sound) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	2.768	2.982
Two	3.179	3.571
Three	2.804	3.196
Four	2.946	2.893

Conductor's Emblematic Specificity (Gesture) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	2.821	3.018
Two	2.857	2.893
Three	2.750	2.321
Four	3.036	3.375

Ensemble's Emblematic Specificity (Sound) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	2.821	3.393
Two	3.411	3.732
Three	2.625	3.571
Four	2.857	2.821

Conductor's Kinesthetic Connection to the Ensemble's Auditory Result (Coarticulated Gesture & Sound) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	3.214	3.661
Two	3.696	3.429
Three	3.500	3.411
Four	3.107	3.179

Conductor Five (Control Group)

Conductor's Point-Light Expressivity (Gesture) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	3.179	3.804
Two	3.875	3.536
Three	3.929	4.161
Four	3.196	3.804

Ensemble's Expressivity (Sound) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	3.143	3.643
Two	3.786	3.607
Three	3.293	4.304
Four	3.196	3.321

Conductor's Emblematic Specificity (Gesture) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	3.518	4.018
Two	3.321	4.054
Three	3.625	4.125
Four	3.107	3.911

Ensemble's Emblematic Specificity (Sound) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	3.625	3.768
Two	3.989	3.946
Three	3.043	4.089
Four	3.179	3.161

Conductor's Kinesthetic Connection to the Ensemble's Auditory Result (Coarticulated Gesture & Sound) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	3.250	4.196
Two	4.232	3.821
Three	3.589	4.143
Four	3.161	3.714

Conductor Six (Control Group)

Conductor's Point-Light Expressivity (Gesture) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	3.268	3.714
Two	3.411	3.857
Three	3.125	3.839
Four	2.536	3.804

Ensemble's Expressivity (Sound) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	3.357	3.768
Two	3.196	4.000
Three	3.054	3.571
Four	2.750	3.482

Conductor's Emblematic Specificity (Gesture) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	3.732	3.964
Two	3.714	3.750
Three	3.464	3.696
Four	2.964	3.911

Ensemble's Emblematic Specificity (Sound) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	3.607	3.821
Two	2.696	3.607
Three	2.679	3.625
Four	2.679	4.071

Conductor's Kinesthetic Connection to the Ensemble's Auditory Result (Coarticulated Gesture & Sound) Expert Panel Mean

Excerpt	Pre-Learning Mean	Post-Learning Mean
One	3.554	3.750
Two	3.321	4.071
Three	2.786	4.054
Four	2.929	3.821