

Shared Leadership in Chamber Music Ensembles:
A preliminary study borrowing from sports psychology

Mark Kleyn

A Thesis

Presented in Partial Fulfillment of the Requirements for the Degree

Master of Arts in Music

University of Ottawa

April 2016

Abstract

Connections between athletes and musicians have been drawn recently by scholars, sports psychologists, and musicians. Literature on these connections, however, has focused on individuals rather than exploring connections between teams and ensembles. The broad goal of our study was to determine whether leadership roles like those observed in sports research emerge in chamber music ensembles. We chose to focus on connecting the literatures of leadership in sports and music by using a questionnaire drawn from sports research (Fransen, et al., 2014) in a chamber music setting. Fransen's model was designed to measure the emergence of four leadership roles (Task, Social, Motivational, and External) in teams. In our study, fifty local musicians responded to an online questionnaire derived from Fransen (2014). We found that all four of Fransen's leadership roles were identified by respondents as present in chamber ensembles. Respondents were also asked to describe leadership roles in their ensemble that did not fit Fransen's four leadership roles, where such existed. From their responses, we postulate the roles of "organizational leader" and "leader by example" in chamber ensembles. We interpreted the organizational leader to be an extension of Fransen's "external leadership" role. We interpret the leader by example role to be a set of attributes as predictors of shared leadership in individuals, rather than as a separate leadership role. In light of our findings, we offer suggestions for improving the functioning of chamber ensembles and for future research in this topic.

Keywords: Shared Leadership, Chamber Music, Chamber Ensemble, Sport Psychology, Leadership Roles

Acknowledgements

I would firstly like to deeply thank my thesis supervisor, Professor Murray Dineen, for his artful wisdom, discerning guidance, and genuine comradery during the entirety of this endeavor. I would also like to sincerely thank each faculty member serving on my advisory committee for their diverse and learned perspectives offered throughout this process. Additionally, I would like to thank my performance mentors, Rennie Regehr and David Currie, for all their tutelage for the duration of my studies at the University of Ottawa.

I would like to extend my sincerest gratitude for all those who completed our survey and all performers with whom I have spoken with about this project. Your insights are invaluable and have been extremely helpful. Furthermore, I would like to thank each member of the Happy Shepherd String Quartet, as they have been my dearest friends during the thick of this time.

I would lastly like to thank my parents, Christopher and Diana Kleyn, for their enduring support; carrying each burden and celebrating each victory alongside me from miles away.

I could not have done this without the help of all those mentioned as well as many others. To all those involved, for everything you have given, each of you, I thank you sincerely.

Table of Contents

Abstract	ii
Acknowledgements	iii
List of Figures	vii
Introduction.....	viii
Chapter 1. Literature Review	1
1.1. Introduction.....	1
1.2. Sport Psychology for the Individual Performer	3
1.3. Sport Psychology for Teams and Ensembles	7
1.4. Leadership in Sport Psychology.....	8
1.5. The Concept of Shared Leadership	10
1.6. Leadership in Ensembles	15
1.6.1. Leadership in orchestras.....	15
1.6.2. Leadership in chamber ensembles.	20
Chapter 2. Methodology.....	25
2.1. Introduction.....	25
2.2. Design	28
2.3. Recruitment.....	28
2.4. Respondents to the questionnaire	29

2.5. Apparatus	31
2.6. Measurement	36
Chapter 3. Results	40
Chapter 4. Discussion.....	47
4.1. Emergence and Overlap of Leadership Roles.....	48
4.2. Extra Leadership Roles.....	52
4.3. Principal Violin as Principal Leader?	56
4.4. Limitations of Methodology	58
4.5. Theoretical Benefits of Research	63
4.6. Practical Benefits of Research	65
4.7. Observations from the Researcher	71
4.8. Future Studies.....	74
Chapter 5. Conclusion	83
5.1. Answering Our Research Questions.....	83
5.2. Review of our Intentions.....	84
5.3. The Crux of our Findings.....	86
References	89
Appendix A: Ford and Davidson (2002) Survey Reproduced	102
Appendix B: Our Questionnaire Part 1: Demographic	103

Appendix C: Our Questionnaire Part 2: Emergence of Shared Leadership Roles	106
Appendix D: Introductory Letter to Respondents.....	108
Appendix E: Consent Form for Respondents	110
Appendix F: Reminder Letter to Participants.....	112
Appendix G: Raffle Email.....	114
Appendix H: Ethics Certificate of Approval	115

List of Figures

Figure 1. Age Distribution of Respondents	30
Figure 2. Primary Instruments of Respondents	30
Figure 3. Origins of our Background Questions	33
Figure 4. Comparison of Leadership Definitions	34
Figure 5. Instrumental Make-up of Respondent's Groups.....	41
Figure 6. Responses to Question One of our Leadership Role Questionnaire	43
Figure 7. Responses to Questions Two and Three of our Leadership Role Questionnaire	45
Figure 8. Presence of Leadership Roles	49
Figure 9. Leadership Role Overlap	50
Figure 10. Leadership Distribution of Different Sized Groups	51
Figure 11. Descriptions of Extra Leaders.....	52
Figure 12. Descriptions of Extra Leaders Categorized	53
Figure 13. Leadership Representation of Players in String Quartets.....	57

Introduction

The study of group performance in chamber music has to date been undertaken with the frequent assumption that for every ensemble there is a single often predetermined leader. For example, it is often presumed that ensemble leadership in a symphony orchestra resides with the concertmaster, who interprets the directions of the conductor in definitive ways. This assumption, however, proves frequently faulty in practice, where for example the concert master shares interpretive and leadership roles with a “shadow ensemble” of key players (Dineen, 2011). If we turn to the scholarly literature devoted to the study of sport, we find descriptions of multiple leadership roles in any given team. These multiple leadership roles, particularly, include task, motivational, social, and external leadership. The object of this thesis is to adopt some of the perspectives learned from sports research on teams to the study of leadership in chamber music ensembles.

Our objects of study, then, are leadership roles in chamber music ensembles as these might be compared with leadership roles in sport teams. In our study, we draw from models in sports research, primarily Fransen et al. (2014). The theoretical framework of Fransen’s survey was grounded in shared leadership theory, which originated in industrial organizational psychology (Pearce & Conger, 2003) and has been increasingly used to study leadership in sports. Shared leadership theory is based on the premise that leadership in groups can come from the informal leadership of peers or team members, rather than from formally appointed bosses or coaches.

Through our research, we observed that leadership roles emerge in chamber music ensembles in ways comparable to sports. Particularly, we examined the emergence of Fransen et al.’s (2014) four leadership roles of task, social, motivational, and external leader to emerge in

similar ratios in chamber ensembles. One aspect of our research leading to that conclusion involved the use of an online questionnaire comprised of two sections. The first section contained background questions modeled after Ford and Davidson's (2002) survey for wind quintets. The second section of our questionnaire contained a version of Fransen's questionnaire modified to fit the chamber music setting and to inquire about leaders that might not fit any of Fransen's definitions. Under Professor Dineen's guidance, we have combined the use of the questionnaire with insight gained from the growing field of "experiential research," which concentrates upon inductive "close" research, as described in Grant, Gilmore, Carson, Laney, and Pickett (2001). To this end, we have drawn upon our experience practicing and performing in chamber music ensembles both professionally and at the University of Ottawa in the Master of Music performance programme.

In this thesis, we envision the primary output of our research in its application to everyday practice in chamber music, be it in rehearsal or in performance. We consider some aspects of this application towards the end of the thesis.

Chapter 1. Literature Review

The primary goal of our study was to build upon the already established connection between sport psychology and music performance psychology by examining the transferability of leadership concepts between the two fields. To do this, we took a model of shared leadership which has been used in sports (Fransen, 2014) and applied this model to chamber music ensembles. In this literature review, we describe recent research upon which we have drawn in our application of the sports leadership models to chamber ensembles. We first highlight the established connection between sport psychology and music psychology, noting that literature in this topic focuses primarily on the individual performer rather than the group. After describing similarities between sport teams and chamber music ensembles, we propose an investigation of the element of leadership as a possible similarity between teams and ensembles. After this, we provide an overview of leadership studies in sport. We suggest the use of a shared leadership approach to leadership in teams and ensembles. We then describe the theoretical groundings and origins of shared leadership and discuss the details of this concept. Lastly, we examine the literature concerning leadership in orchestras and chamber ensembles, highlighting elements that point to the applicability of a shared leadership model to study leadership roles in chamber music ensembles.

1.1. Introduction

The literature connecting sport psychology with music performance shows us that skills used by athletes are also used by musicians, and musicians can borrow insights from the extensive research that has been done in sport psychology (Bellon, 2006; Clark & Williamon, 2011; Hamilton & Robson, 2006; Hays, 2012; Martin, 2008; McAllister, 2013; Nordin-Bates, 2012;

Olevsky, 2012; Orlick, 2008). Musicians practice many of the skill sets found in sport psychology, but sport psychology has the advantage of a greater body of research and specialized sport psychologists. It was our prediction that sport teams and music ensembles function in similar ways with regard to leadership: similar elements would be present, and some of the same principles would apply and be improved upon with insights from one domain to the other.

The topic of leadership is prevalent in the literature of music and sport psychology (Bass, Avalio, 1995; Northouse, 2013). In orchestras, leadership research has usually focused on the inspirational, heroic conductor (Koivunen, 2003; Kramer, 2006; Service, 2012). The research of chamber ensembles has seen leadership emerging from a more democratic setting, but has still confined the title of ‘leader’ to an individual, with a possible ‘deputy leader’ (Ford & Davidson, 2002; King, 2006). For example, in a survey of British string quartets (Murnighan, 1991), the term ‘first violinist’ was considered synonymous with ‘leader’ by many of the study’s participants. In contrast to this approach of examining individual leaders, the field of sport psychology has been increasingly viewing leadership as a set of interactions that can be exhibited by any team member.

This concept of shared leadership has become prevalent in sport and industrial organizational (IO) psychology. Shared leadership, as a concept, was first proposed as a leadership theory in IO psychology by Pearce and Conger (2002), who derived the theory from a variety of theoretical insights and ideological trends in research. Shared leadership theory in IO psychology examines leadership roles, paths of influence, and classifications of interactions. The concept of shared leadership has since been adopted into the sport psychology field, primarily by Loughhead, Hardy and Eys (2006). Based on the concept of shared leadership, Loughhead and other sport researchers have developed their own theory of shared leadership in sport, containing several models of leadership. One of these models focuses on identifying informal leadership roles

(Loughead, Hardy & Eyss 2006). The informal leadership roles included in this model are Task, Social, and External Leaders. Other researchers (Fransen, Vanbeselaere, Cuyper, Bande Broek, & Boen, 2014) expanded Loughead, Hardy, & Eys' (2006) leadership roles by adding a fourth role, the Motivational Leader, to Loughead's model. We have used Fransen's model of shared leadership roles to test the relevance of the concept of shared leadership in the setting of chamber music.

1.2. Sport Psychology for the Individual Performer

The connection between athletes and musicians is expressed at its strongest levels in the literature on skill sets of individual musicians and individual athletes. While there are obvious differences between the two, the skills required for success in sports and music have remarkable parallels (Clark & Williamon, 2011, Hamilton & Robson, 2006; Hays, 2012; McAllister, 2013; Nordin-Bates, 2012; Orlick, 2008).

The association between sports and music is explained by Nordin-Bates (2012) in her article "Performance Psychology in the Performing Arts," Nordin-Bates outlines what she refers to as "similarities, divergences, and novelties" of the two fields in relation to one another (p. 2). The similarities in sports and music include the importance of motivation and flow, issues of perfectionism and disordered eating, and managing injury and pain. Divergences, which refer to areas where sports and music share common ground but have substantial differences, include psychological skills, anxiety, and issues of self-confidence and self-esteem. Music differs greatly from sports, however, in regard to the act of memorization, the expression of emotion and the nature of the respective.

Martin (2008) agrees with this by stating that, while the two fields of music and sport may seem disparate, they do share a great deal in common. Specifically, Martin states that both athletes

and musicians are “required to apply themselves over a sustained and disciplined period of time in order to develop high-level skills; they both need to ‘switch on’ in key performance settings; they are both subjected to the rigors and challenges of competition; they both need to bounce back from inevitable setbacks they encounter along the way; they both need a set of psychological and behavior skills to cope with the ordinary pressure of their respective pursuits and settings” (p. 1-2).

Musicians themselves are realizing the importance of sport psychology for their practice. A handful have published their research findings. Dominique Bellon (2006) interviewed several musicians to gain a better understanding of how musicians use athlete mental skill-sets. She noted that musicians used a variety of skills that athletes use, including goal-setting, organization, and pre-event routines. Dimitri Olevsky (2012) deliberately expounded on Bellon’s investigation by further examining effective preparation, development of confidence with positive attitude, and the use of imagery and visualization. By doing this, Olevsky proposed that, while many musicians have strong mental skill sets, the world of sport psychology can provide invaluable knowledge on how to sharpen these tools.

The most comprehensive application of sport psychology to musicians by a musician can be found in Leslie McAllister’s (2012) book *The Balanced Musician: Integrating Mind and Body for Peak Performance*. In this book, McAllister delves into the practical application of psychological skills used by athletes and their application for musicians. McAllister makes a strong case for the comparison of athletes to musicians by pointing out the similarities between the two positions. Both athletes and musicians perform under pressure and scrutiny and must perform complex movement automatically. Both must maintain concentration on the task at hand. Also, athletes and musicians follow practice routines on a consistent basis over an extended period of time,

whether it be in a practice room or on a football field. Athletes and musicians also must use efficient movement to avoid overuse injury or overexertion. The scheduling of practices for optimal performances on specific days is prevalent in both sport and music. Musicians and athletes must excel in a highly competitive environment and react swiftly to unexpected events. Musicians and athletes use repetition and drilling to develop specific technical skills and gain expertise through demonstration and modeling. After establishing these connections between athletes and musicians, McAllister delves into a comprehensive array of skill sets and topics of sport psychology and how they can be implemented by teachers for students or for players for their own practicing.

In addition to the research and exploration in sport and music psychology, the connection between the two fields is actively explored by practicing sport psychologists. One of these individuals, Kate Hays (a clinical psychologist with a developed expertise in sport psychology), discusses her work with athletes and musicians in several articles and books (Hays, 2000, 2002, 2012). Hays emphasizes that performance psychology is an “inter-professional idea” (K. Hays, personal communication, Nov. 19, 2014) and can work well in sports, music, industrial settings and in high-risk professions. Hays also stresses that, even though there are parallels, it is imperative that each situation be treated in its own context; a soprano and a running-back should be treated differently.

Similar writings have been done by other performance psychologists, emphasizing and supporting similar points (Hamilton & Robson, 2006; Orlick, 2008). Hamilton and Robson also state that many of the cognitive-behavioral techniques that enhance the performance of athletes can enhance the performance of musicians. Hamilton and Robson offer tailored versions of these approaches for counseling artists. Terry Orlick proposed in his *In Pursuit of Excellence* that the

keys for excelling in sports can be transferred to musicians, dancers, actors, emergency response teams, surgeons and any other position that requires intricate performance under pressure (Orlick, 2008).

A growing field of “performance psychology” has been emerging from the application of sport psychology to musicians (Clark & Williamon, 2011). A nine-week seminar on music-specific mental skills was given to students at an English conservatory. Participants showed a significant increase in self-efficacy for performing and an increase in imagery vividness. The participants reported greater levels of self-awareness, confidence, facilitative views toward and heightened control over anxiety, and healthier perspectives toward music-making.

In light of studies like this, we can see that sport psychology and music psychology should be regarded as compatible fields by sport psychologists and musicians. The mental skills athletes use to develop a stronger competitive edge transfer extremely well to musicians who want to have a stronger mental game coupled with their technique. However, these mental skills are not foreign to musicians. Many musicians use mental strategies used by athletes, but athletes have the benefits of having explicit literature and coaches to train their mental strategies. So, the mental strategies of musicians can be enhanced by examining them through a sport psychology lens. Many musicians are now seeking assistance and counseling from sport psychologists, (Deutsch, 2015). If we take this link from individual athletes to individual musicians, and expand the parameters to include group interactions, it would seem logical that the social-psychological aspects of chamber ensembles will benefit from being examined through the insight borrowed from the world of sport psychology. This will involve recognizing skills chamber groups already possess and determining how we can better our skills in this regard.

1.3. Sport Psychology for Teams and Ensembles

Research has shown that mental strategies used by athletes can be used by the individual musician to improve success and consistency. If there are such strong relationships between individual athletes and individual musicians, there may be strong relationships between athletes in groups and musicians in groups. We shall consider that possibility here, especially with regard to leadership in teams and ensembles.

Chamber groups and sports teams, for example, both practice maneuvers or passages, and then perform in front of an audience. The experience of flow is applicable to both sports teams (Jackson & Csikszentmihalyi, 1999; Kimiecik & Jackson, 2002) and ensembles (Marotto, Roose & Victor, 2007). Psychological skills used by athletes and musicians individually will affect the group outcome. In both sports and music, the end result is partially dependent on how well each individual plays their part. Both sports teams and music ensembles experience anxiety before performing (Martin, 2008). It can also be said that attitude is contagious in groups, whether that group is a sports team or a chamber ensemble.

There are several reasons why we wish to focus on leadership as an element of sports teams transferrable to chamber groups. Firstly, successful sports teams often attribute their success to notable leaders in the organization. Secondly, the sheer attention which leadership has been given in sports, business, and music indicates the importance of leadership in these areas. In the music world, leadership has been examined in chamber groups and in orchestras, but, as will be seen later, in outdated form, or in ways that are not as informed as they could be. To skillfully examine the connection between sports teams and music ensembles, we propose using the concept of shared leadership, a concept that has recently gained significant attention in both sport and IO psychology.

1.4. Leadership in Sport Psychology

Leadership is a topic extensively researched in a wide range of fields. Consequently it has been said that there are almost as many definitions of leadership as there are people who have tried to define it (Stogdill, 1974). Cotterill (2012) offers an overview of major theoretical approaches of leadership found in sport psychology. Cotterill's overview includes a classification (Behling & Schreisheim, 1976), further modified by Carron, Hausenblas, and Eys (2005), of different leadership theories. The four main theories of leadership in sport in Carron's classification are "universal trait theory," "situational trait theory," "universal behavior theory," and "situational behavior theory." The trait theories attempt to pinpoint innate personality traits of great leaders. Behavioral theories focus on measuring and classifying behaviors exhibited by a leader. In the early development of leadership theories, leadership qualities were assumed to be universal. In universal theories, a great leader will be a great leader no matter what; Michael Jordan would theoretically be an excellent CEO (Hackman, 2005), and Herbert Van Karajan would be as brilliant a hockey coach as he was an orchestral conductor. In situational theories, on the other hand, different environments require different traits or behaviors from leaders.

Included in Cotterill's overview is Bass and Avalio's (1995) full-range leadership theory, which focuses on transformational, transactional, and laissez-faire leadership behaviors. Transactional interactions are interactions that fit within the basic job description. An example of a transactional interaction would be an employee turning in reports to keep their job and receive a pay check. Transformational interactions, conversely, occur when the leader inspires the group member to go above and beyond their job description. Laissez-faire interactions are a type of non-leadership in which the leader does not actively lead.

The final component of Cotterill's overview is Graen & Uhl-Bein's (1995) Leader-Member-Exchange Theory. Until recently, this has been the primary choice of sport researchers. Chelladurai & Saleh (1980) developed a questionnaire that has been used extensively to study team captains and coaches. This approach measures required, preferred and actual behaviors exhibited by leaders. The leader can then be assessed by how well the leader's actual behaviors match the behaviors required by the job or preferred by the players. Since its development, Chelladurai and Saleh's Leadership Scale for Sports (LLS [Chelladurai & Saleh, 1980]) has been the dominant approach for measuring leadership in sports teams and has typically been used to study the leadership behaviors of coaches (Loughead & Hardy, 2005).

The mutual shortcoming of trait theory, situational theory, full-range leadership theory, and leader-member-exchange theory is that these theories are designed to study single, formal leaders in teams: coaches, general managers, and team captains. Recent research in sport psychology, however, acknowledges the significance of leadership generated by regular team members (Fransen, et al., 2014; Loughead, Hardy, & Eys, 2005, 2006).

The concept of shared leadership, which was originally formed in the industrial organizational field of psychology, has found a home in the field of sport psychology in recent years. The concept's application to sports teams raises the question of whether this concept can transfer to chamber groups. Shared leadership certainly appears to be most applicable to the collaborative and dynamic setting of a chamber group (compared to a leadership theory that would focus exclusively on a chamber music "coach" or the behavioral patterns of the first violinist, for example).

1.5. The Concept of Shared Leadership

Researchers of shared leadership typically base their theories, models and domain-specific definitions on Northouse's (2013) general definition of leadership, which states that leadership is "a process whereby an individual influences a group of individuals to achieve a common goal" (p. 5) (Fransen, et al., 2014; Hackman, 2005; Koivunen, 2003; Loughhead & Hardy, 2005, 2006; Loughhead, et al., 2014; Pearce & Conger, 2002). There are four components to this definition. Firstly, leadership is a process. Under this premise, leadership is not confined to traits or characteristics, but is an interactive occurrence between leader and followers (Loughhead & Hardy, 2005). This makes leadership available to everyone, not just the team captain or the CEO. The second element of this definition is influence. Team leaders must be able to influence others with their leadership, otherwise, it doesn't exist. The third component of Northouse's definition is that leadership occurs in groups. Leadership cannot occur in a vacuum. The final component of Northouse's definition is goals; leadership is concerned with the guiding of a group of individuals towards a goal.

Shared leadership, as a concept, is based on the premise that it is "unlikely that a single external leader can successfully perform all leadership functions" (Carson, Tesluk & Marrone, 2007, p. 1). Shared leadership is the primary theory used to study groups and sports teams by researchers over the last ten years and "involves informal influence as part of a dynamic, interactive process among members in groups, both lateral and vertical, but with a key attribute being more than just downward influence on the members by an appointed or elected leader" (Pearce & Conger, 2002, p. 1). Essentially, leadership can be held by formal (CEO's, project managers, etc.) and informal leaders (social supporters, motivators, veteran experts, etc.) and can have streams of affect going in multiple directions (Carron, Hausenblas, & Eys, 2005). In this

process-oriented concept of leadership, then, every member of a team has the opportunity to be a leader (Bednarek, 1976; Kozub & Pease, 2001; Wheelan & Johnston, 1996). This concept of shared leadership fits with Northouse's (2013) well-accepted current definition of leadership mentioned earlier.

The concept of shared leadership originated in the field of industrial organizational psychology. The first allusion to the concept of shared leadership is considered to be offered by Gibb (1954), who stated that "leadership is probably best conceived as a group quality, as a set of functions which must be carried out by the group" (p. 54). Pearce and Conger (2002) were the first to offer a theory of shared leadership, which was founded on "flirtations" with elements related to shared leadership, as Pearce and Conger called them, which have emerged throughout the last hundred years of leadership research. The first flirtation referenced by Pearce and Conger was the law of the situation (Follet, 1924). Follet's law of the situation stated that one should follow the person with the most knowledge regarding the situation at hand, and that person might not have been the person with the most formal authority. The second flirtation referenced by Pearce and Conger was the concept of mutual leadership, put forth by Bowers and Seashore (1966). Bowers and Seashore empirically documented leader influence processes that could come from peers and found that these lateral streams of leadership could positively affect organizational outcomes.

These two flirtations with shared leadership concepts came and went in their time, overshadowed by more prominent trends in leadership research in IO psychology. However, throughout the 1980's and 90's, industrial organizational research investigated a variety of topics which laid a framework for shared leadership, including human relations, social systems, role differentiation theory, co-leadership, participative goal setting, and emergent leadership

(Pearce & Conger, 2002). From these theoretical flirtations and research trends, Pearce and Conger built their theory of shared leadership in IO psychology.

In the theory of shared leadership, all members of the team were considered possible contributors to the teams “leadership capacity” (Bednarek, 1976; Day, Gronn & Salas, 2006). During its growth in industrial organizational psychology, shared leadership has been found to have positive relationships with certain desired team outcomes. For instance, it has proved a more successful predictor of change in management effectiveness than the leadership style of the appointed leader (Pearce & Sims, 2002). Shared leadership was also a more useful predictor of team dynamics and perceived effectiveness than vertical leadership (Pearce, Yoo, & Alavi, 2003). It was also found that informal leaders’ perceptions of efficacy had a significant effect on group-level efficacy (Prescosolido, 2001).

The idea of shared leadership can be seen as easily applicable to sports. 2010 Olympic Gold Canadian Coach, Mike Babcock can be quoted, “depending on the moment, everybody on a team has a chance to lead in their own way” (Babcock & Larsen, 2012, p. 64). Sports leadership research has a long history of borrowing models from industrial and organizational psychology (Rieke, Hammermeister, & Chase, 2008). The concept of shared leadership follows this pattern and has been adopted by experts in sport leadership.

The dominant way of measuring leadership in sport has been the Leadership Scale for Sport (Chelladurai & Saleh, 1980). This scale has almost exclusively used to measure the leadership of coaches. However, through the lens of shared leadership, the players can be seen as a source of leadership. Indeed, coaches believe athletes are vital for effective team functioning and performance (Chelladurai, 1993, 1990). To deliberately apply shared leadership to sport psychology, Loughhead and Hardy (2005) utilized the Leadership Scale for Sport (LSS) to examine

the behaviors of not only coaches, but of athlete leaders. Loughhead and Hardy (2005) found that coaches were perceived as exhibiting more training and instruction and autocratic behaviors while peer leaders were more prone to exhibit social support, positive feedback and democratic behaviors. In the same study, Loughhead and Hardy found that 65.1% of athletes on teams sampled said that team leadership was held by not only the team captain, but by other members as well, and that over a quarter of players were peer leaders on teams.

Furthering their research, Loughhead, Hardy and Eys, (2006) examined and formulated specific shared leadership roles that existed in sports teams. Formal leadership roles included elected positions, like coach or team captain. Informal roles were categorized as task leader, social support leader and external leader. Task leaders were focused on training and instruction. Social leaders organize social events and include members outside of practice or games. External leaders represented the team or group outside of the club in meetings, press conferences, or similar settings.

Extending Loughhead, Hardy & Eys' (2006) classification system, Franzen, Vanbeselaere, Cuyper, Vande Broek, and Boen (2014) noted the clear emergence of a fourth leadership role in sports teams: the motivational leader. The motivational leader encouraged teammates through on-the-field support. This additional role was established through a survey study, and was based on motivational leadership behaviors outlined in other literature (Dupuis, Bloom, & Loughhead, 2006; Holmes, McNeil, & Adorna, 2010; Mosher, 1979). For our study we used the three leadership types outlined by Loughhead, Hardy and Eys (2005, 2006) with the additional Motivational Leader role proposed by Fransen et al. (2014). Therefore, our model consists of Task, Social, External and Motivational leadership roles.

Researchers have found some of the same benefits of shared leadership in sport psychology as found in industrial organizational psychology. In sports teams, coaches were asked to indicate the preferred number of athlete leaders on a given team. Coaches preferred to have about 85% of their team comprised of leaders in one way or another, and the coaches interviewed in this study suggested that more team leadership would enhance team resources, role clarity, cohesion, improve team communication and increase satisfaction (Crozier, Loughead & Monroe-Chander, 2013). It was found that certain elements (training and instruction, and social support) in informal leaders were strongly correlated with high cohesion in sports teams (Vincer & Loughead, 2010). In another study, the presence of task, social and external leaders in intercollegiate soccer teams were found to increase group satisfaction judged by the Athlete Satisfaction Questionnaire (ASQ [Reimer & Chelladurai, 1998]) if they were all present in relatively balanced amounts (Eys, Loughead & Hardy, 2007).

In Fransen's et al., (2014) study establishing the motivational leadership role, the presence of more leadership roles in teams resulted in higher collective efficacy beliefs and more developed connectedness with players and their teams. In the same study, it was found that having several different leaders instead of one ultimate leader, provided a better environment for optimal team functioning, as determined by Fransen's parameters. In Vincer and Loughead's (2010) study of the behaviors of athlete leaders, training and instruction, and social support significantly influenced cohesion. Autocratic behavior was negatively associated with cohesion, and democratic behavior of athlete leaders was positively associated with cohesion of the individual athlete's attraction to group tasks (Vincer & Loughead, 2010).

We used Fransen's model of shared leadership roles when studying the emergence of leadership in chamber music ensembles. We made this choice based on the strong connection

already existing between sports and music and the success of shared leadership as a concept in both IO and sport psychology, the prevalence in Loughhead's work in sport leadership research, and Fransen's theoretical groundings in Loughhead's work. Shared leadership as concept took hold of sport leadership studies and seemed to be an excellent lens with which to observe the functioning of chamber groups. We can use the proven benefits of applying concepts from sport psychology to musicians by exploring this shared leadership concept and its connections to musicians. First, however, we must examine leadership research already conducted on music ensembles.

1.6. Leadership in Ensembles

The leadership explorations done in orchestras, chamber music groups, and jazz ensembles provide insights for the study of leadership in music and allow for the growth of understanding in music studies as well as the increasingly connected fields of sport and IO psychology. We shall draw upon leadership studies in orchestras and chamber music groups in our work with chamber music ensembles.

1.6.1. Leadership in orchestras. When thinking of leadership in sports teams, our mind tends to go to the coach's chair. Similarly, when thinking of leadership in orchestra, our mind goes directly to the podium. Leadership studies in orchestras have followed the path of leadership studies in any other discipline in that researchers, musicians, and concertgoers have fallen prey to the allure of the heroic sole leader of the conductor (Hackman, 2005; Hallmark, 2000; Koivunen, 2003; Lebrecht, 1991; Service, 2012). Assumptions of leadership in symphony orchestras have also neglected to take a close look into the working conditions of orchestras; these inner workings have been illuminated in several studies, showing their autocratic and factory-like conditions (Couch, 1989; Hackman, 2005; Pichanick & Roher, 2002). Following these illuminations, research has finally begun to investigate shared leadership in orchestras (Hackman, 2005;

Koivunen, 2003; Service, 2012), particularly by examining the Orpheus Chamber Ensemble, which operates without a conductor (Banai, Nirenberg, & Menachem, 2000; Hackman, 2004; Traub, 1996; Vredenburg & He, 2003).

Like leaders in other fields, conductors have been the objects of considerable study. Studies have been done on conductors as types of leaders as seen from various perspectives (Armstrong & Armstrong, 1996; Wis, 2002, 2007). Many such studies assume the old, by now traditional concept of one-ensemble-one-leader in that they focus on a single definitive leader.

This misattribution of the conductor as the sole source of leadership, however, is being recognized by several researchers, among them Dineen (2011). In *Music as Alchemy*, Tom Service (2012) describes the captivating heroic image of the conductor. He himself was inspired to study conducting after seeing his first symphony concert. However, Service says that he eventually realized that “the conductor is nothing without their musicians” (p. 7). The rest of the book is dedicated to explaining the story of several orchestras by delving into the stories of both the conductor and the musicians of each, highlighting the unique importance of each orchestra.

In *The Maestro Myth*, Lebrecht (1991) delves deeply into why we are so fascinated with conductors and elevate them above the orchestra. He begins with stating that “every age invents heroes,” (p. 1) explaining further that the conductor has been elevated by musicians who desire charismatic scape goats, audiences who crave escape in personification, and a media who runs on selling stars. Lebrecht dedicates the rest of the book to explaining that conductors are more businessmen than they are leaders or musicians (Lebrecht, 1991), pointing out that the inspirational characters we see are likely the result of excellent marketing strategies.

Hallmark (2000) also discusses these themes, attributing the growth of the star conductor to the growth of accessible visual media, but also to the conductor’s relationship with living

composers. Conductors, according to Hallmark, used to be champions of new music and work with new composers, but have now moved away from programming contemporary pieces into their seasons. This, argues Hallmark, increases the distance between the orchestra and the composer, making the conductor the best living authority of the score, thus magnifying their authority over the orchestra.

Another researcher who has critiqued the old-fashioned method of studying leadership in orchestras is Richard Hackman (2005). In “Rethinking Team Leadership or Team Leaders Are Not Music Directors,” Hackman explains that many seminars on leadership use symphony conductors as perfect examples of leadership. Hackman quotes an invitation for a leadership seminar by Dr. Stephen Covey: “Imagine synergy as the blending of individual talents within an orchestra to produce a unified sound that far exceeds the capability of each musician. A great conductor can show each musician how to look within and find even more potential” (p. 120). Hackman also cites Peter Drucker’s (1988) article that proposes the symphony orchestra as a model for the information age. “A large symphony orchestra is ... instructive, since for some works there may be a few hundred musicians on stage playing together. According to organization theory, then, there should be several group vice president conductors and perhaps half a dozen division VP conductors. But that’s not how it works. There is only the conductor-CEO – and every one of the musicians plays directly to that person without an intermediary. And each is a high-grade specialist, indeed an artist” (p. 48).

In his article, Hackman (2005) has taken apart the conductor misconception in two ways. Firstly, he argued that far too much emphasis is placed on the conductor, referring to this as leader attribution error. If the concert goes well, the conductor receives the praise. If the concert goes poorly, the conductor is to blame. Leader attribution error is only muted when there is significant

ambiguity about whether a team's performance was a success or a failure. The second way Hackman takes apart the conductor misconception is by saying that orchestras are not the inspiring democracies we might think they are. They are autocracies. Leader attribution error aside, music directors are in full charge of what happens in rehearsals and in concerts.

Several other researchers have supported this, saying that orchestras are very similar to factories. Pichanick & Rohrer (2002) cite an interviewee orchestra member "to the outsider, it may look like a glamorous job, but it's not. It's a factory job with a little bit of art thrown in" (p. 94). Couch (1989) reverberates this remark, stating that orchestras are little more than "factories of music" (p. 1). Couch explains that symphony orchestras are run by a wealthy lay board of directors who employ bureaucratic management to hire musicians to work in a tightly controlled workplace. Couch clarifies that musicians are responsible for little more than the performance of their own parts.

With these descriptions of conductors and orchestras, orchestras may seem like a strange place to find shared leadership. However, there are studies that call for a shared leadership approach to studying and running orchestras. Atik (1994) explains that, in the "interactive aspects of the leadership process" (p. 24), players need to be respected by the conductor, or else the conductor's leadership style is irrelevant. Boerner & Sreit (2005) make a very similar claim, stating that conductors' transformational leadership style promoted the orchestra artistic quality only if there was a cooperative climate in the orchestra. The direction of influence in orchestras has also been examined by Marotto, Roos & Victor (2007), who found that 'flow,' as described by Csikszentmihalyi (1991), not only passed from conductor to musician, but actually was more likely to flow from neighbor to neighbor within the orchestra. This finding has been corroborated

by D'Ausillio et al. (2012), stating that leadership in orchestra emerges from the causal relationships of movement kinematics.

The strongest case for shared leadership in symphony orchestras is given by Koivunen (2003) in a case study of two orchestras. In this case study the researcher interviewed conductors, managers, board members and musicians on an array of topics. Interview results were then categorized into different discourses. With the 'shared leadership' discourse, Koivunen explains that musicians did feel happier when they were more involved. A central aspect of improving shared leadership was primarily through communication, on both the managerial and musician sides. Through improved communication would come better understanding, explained Koivunen. The conductor also had a role to play in improving the shared leadership of the orchestra. Conductors with a musical focus, rather than an egoistic focus, were much more liked by the players and gave the players a greater sense of contribution to the music.

Tom Service (2012) said it would be hard to imagine a conductor, like Simon Rattle, for instance, in concert without their orchestra. What is possible to imagine, however, is an orchestra without a conductor. The Orpheus Chamber Ensemble is exactly that. The orchestra operates without a conductor, rotating deputy positions each concert. Musical decisions are worked out by the serving principals for each concert in separate preliminary rehearsals and then transferred to the full group in subsequent rehearsals. This model of leadership has received a lot of attention from researchers. Vredenburg & He (2003) remark that there can be leadership even if there appear to be no leaders in a group. The researchers call this layered or rotational leadership in their article and attempt to use the Orpheus model to advise business organization leadership models. Khodyakov (2007) sees the group's success as coming largely from trust among the members, who have more control over their situation than most orchestra musicians. Banai,

Nirenberg, & Menachem (2000) observe from Oprheus that self-managing teams made of members who make long-term commitments will change the way organizations work.

In orchestral leadership studies, then, the conductor has been central and the working conditions of orchestra musicians have been misunderstood. However, this conductor attribution error and over-romanticized environment has been taken apart and seen empirically for what they are by several researchers (Couch, 1989; Hackman, 2005; Pichanick & Roher, 2002). To remedy these misconceptions, there is a call for a more democratic approach to orchestras (Benai, Nirenberg, & Menachem, 2000; Khodyakov, 2007; Koivunen, 2003) and a more lateral influential approach to leadership research in orchestras (Atik, 1994; Boerner & Sreit, 2007; Hackman, 2005; Marotto, Roos & Victor, 2007; Koivunen, 2003, 2011). While this study focuses on shared leadership in chamber groups, it is important to see that shared leadership is being explored in the symphonic sector.

1.6.2. Leadership in chamber ensembles. There are a number of studies on chamber groups that reveal the importance of leadership and shared leadership. Young & Colman (1979) were the earliest to suggest that psychological insight can be applied to a string quartet. The value of leadership was covered, but the leadership styles mentioned were in concordance with the leadership styles prominent in research at the time. Discussing authoritarian, democratic and laissez-faire behaviors of first violinists is a valid approach to leadership, but shared leadership seems a more appropriate approach for chamber music groups.

The first body of research on chamber groups to follow along Young and Colman's suggestions for investigation consists of case-studies of string quartets. Poulson & Abraham (1996) studied the Portland String Quartet in a series of open-ended interviews and observations of concerts and events. The quartet stressed the importance of a shared mission and a dedication

to quality from all members. *Groups That Work (and Those That Don't)* (Hackman, 1990), is a case study of the Detroit String Quartet (Butterworth, 1990). Therein the Detroit String Quartet discussed nonverbal communication during rehearsing and aspects of leadership within the group. The members explained their jobs in terms of the functioning of the group. The responsibility of the upkeep of the group's social environment, however, was defined vaguely in the group, leading to several problems being left alone. It was also suggested that, during the playing of music, nonverbal leadership was distributed throughout the group. A study of the Guarneri String Quartet (Blum, 1987) offered considerable material to substantiate our investigation into leadership in chamber groups. As vehicles for expressing shared leadership, the Guarneri Quartet mentioned non-verbal cues, which the group referred to as "leads." These leads were minute and almost imperceptible to the layman's eye. The quartet explained that the quality of a performance could usually be judged by how well the leads were spread among the group.

In addition to these case studies of string quartets, Lim (2014) has provided further literature with a case study of a professional vocal ensemble. In this study, the Lim expounded that the group achieved performance quality by leading and following each other at appropriate times in the music. This created a flow to the music that was comprehensive and clear. The group also discussed the distribution of tasks outside of music-making. The ensemble recently adopted a system in which everyone had a specific management role, and roles were rotated through the group. This has been found to promote inter-group understanding in social psychology (Day, Gronn, & Salas, 2004). The vocal group reported that this system of sharing leadership was working well for the group.

Several recent studies in chamber music have centered on nonverbal cues and responses to examine leadership and followership. Motion sensor technology has been used (Glowinsky,

Badino, Ausilio, Camurri & Fadiga, 2012) to detect movements by members of a string quartet to the central point between group members. These movements towards the center were seen as indications of leadership and an increased capacity to influence the other musicians. Recording analysis technology has also been employed to gain a better understanding of quartet leadership and followership. In a recent study (Timmers Endo, Bradbury, & Wing, 2014), a string quartet was asked to play a familiar movement of Haydn. Quartet members were told to change tempi randomly. The other quartet members would have to respond and change to the new tempo. The time taken for the rest of the group to re-synchronize was an indication of successful or unsuccessful leadership and followership. Both of these studies were exploratory in nature, but tendencies and relationships did arise between certain group members, indicating that leadership or followership can be exhibited by more than one member.

In addition to the case studies and examinations of nonverbal cues, chamber music research has investigated the roles of musicians in groups. Inner functions of British String Quartets were studied with a survey (Murnighan & Conlon, 1991) to examine three “paradoxes” that exist in string quartets. The first paradox described by Murnighan & Conlon was the presence of both democracy and leadership in quartets. Players reported that a contributing factor to their pursuit of quartet careers over orchestral positions was the greater opportunity to be expressive and a musical individual. However, most quartet music favors the first violinist. Murnighan & Conlon found that first violinists were usually strong leaders in their groups; the terms “first violinist” and “leader” were used interchangeably by many participants. Murnighan & Conlon also found a variance of democracy in the string quartets studied. Some groups exclusively gave autocratic control to the first violinist, while other groups demanded deliberation on most issues. This first paradox is important to us regarding our study, as a shared leadership approach would bring into

question the centralization of leadership in chamber ensembles found in Murnighan and Conlon's (1991) study.

The second paradox in Murnighan & Conlon's investigation was found in the role of the second violinist. The second violinist was expected to be as good, if not better, a player as the first violinist, but their primary function was to echo or play under the first violinist. Groups that were found to be more successful tended to be more socially supporting of their "second fiddle." The third paradox examined by Murnighan & Conlon was regarding harmony and conflict resolution. A variance of conflict resolution strategies were utilized by quartets, but many groups favored a passive approach to group problem solving. From this study, we can see a tendency of formal leadership by the first violin, but leadership exhibited by other quartet members is not fully explored.

One study focused on the roles of student musicians in quartet rehearsals (King, 2006). King examined a wind, saxophone, and string quartet using the theoretical framework of Beblin's (2012) team roles found in the workplace. King found emerging roles of leader, deputy-leader, contributor, inquirer, fidget, joker, distractor, and 'quiet one.' These roles were found to sometimes change across and within rehearsals, possibly to mediate mood changes in members. Quartets with more consistent leaders exhibited more stable team-role behavior, more consistently focused group dynamics and better progress. As exemplified by other studies, King found significance in the role of 'leader' in a quartet. However, leadership in this study was only defined as leader or deputy leader, which is neglecting the possibility for other types of leadership to emerge from an ensemble.

Ford and Davidson (2003) studied the roles of musicians in wind quintets with an extensive questionnaire. When participants were asked if their quintet had a leader only 32.7% said yes.

Out of this 32.7%, most participants considered the flautist to be the leader, followed equally by the oboist and clarinetist. An important statement by Ford in this study is that leadership can mean different things to different people.

The research in chamber groups sheds light on the importance of leadership in ensembles. Groups with more stable leaders perform better and have more stable group roles (King, 2006; Murnighan & Conlon, 1991). It has also been found that leadership might be coming from more than one formal leader (Ford & Davidson, 2002). The significance of member roles (Ford & Davidson, 2003; King, 2006; Murnighan & Conlon, 1991) gives us reason to further investigate these roles for possible leadership elements. The shared musical leading found in case studies of string quartets (Blum, 1987; Butterworth, 1990; Poulson & Abraham, 1993) and the interaction of leadership and followership found in lab studies (Glowinsky, et al., 2012; Timmers 2014) also provide evidence that the concept of shared leadership is relevant in a chamber music setting.

This thesis grows out of the literature on leadership cited above. In undertaking our study, we had two research questions. The first question is to determine whether Fransen's model is "too large" for the chamber music setting by containing more leadership roles than necessary to describe ensemble leadership roles. The second question is designed to determine if Fransen's model is "too small," or doesn't include enough roles to describe ensemble leadership roles. Our research questions were as follows:

1. Do shared leadership roles found in sport psychology, as defined by Fransen et al. (2014), emerge in chamber music groups?
2. Are there leadership roles that emerge in chamber music that have not been recorded as emergent in sport psychology, and what is the general nature of these roles?

Chapter 2. Methodology

To structure this chapter, we rely upon Fransen et al. (2014) wherein, under the section title “Method,” Fransen uses the subtitles “Recruitment,” “Participants,” and “Measures.” Accordingly after introducing our research questions and the general methodological frameworks for our study, we shall begin by describing the strategies used for recruiting participants in the study. Since we made a questionnaire a focal point, we shall use the term *respondents to the questionnaire* in place of *participants* for the sake of precision. In the subsection entitled “Measures,” Fransen describes adapting a classification scheme for leadership roles (Loughead et al., 2006), which she presents in tabular form. In our Measures section, we shall discuss the questionnaire used in our study (reproduced as Appendix B and C).

2.1. Introduction

Fransen concludes her “Measures” section by describing the use of the “Collective Efficacy Questionnaire for Sports” (Short, Sullivan and Filtz, 2005). In the discussion with In Discussion with Professor Dineen, reporting his experiences during the course of a SSHRC funded study bringing together sports psychologists and music scholars, we conclude that no comparable indicator was available for music research. The sports model determines optimal functioning by game wins and losses, a criterion not applicable to musical performance. Following the research strategy adopted by Professor Dineen and borrowed from ethnographic and sociological research (described as “ex post facto” research design in sociology and anthropology, to be discussed below), we conclude this chapter by describing our analytic approach as a blend of quantitative, analysis, qualitative analysis, and experimental research

Our analytic approach builds upon recent work in “mixed methods research,” notably a recent survey, “Toward a Definition of Mixed Methods Research,” Johnson et al. (2007). Therein,

the authors note mixed methods research as a “third major research approach or *research paradigm*, along with qualitative research and quantitative research,” (p. 112) and give an overview of its recent history. They define it provisionally as “an approach to knowledge (theory and practice) that attempts to consider multiple viewpoints, perspectives, positions, and standpoints (always including the standpoints of qualitative and quantitative research),” (p. 113).

In part, this new approach to research is a means of attempting resolution to the so-called “paradigm wars” that pitted quantitative against qualitative research (and continue to do so in some quarters). Expressed in positive terms, however, it draws upon the by now well-established concept of “triangulation” and its offshoots, dating from the work done in methods research in the 1950s.

Bearing in mind “mixed methods research,” we have sought to incorporate in our approach to study the notion of an “experiential research” methodology, as described for example in Grant et al. (2001), as follows:

The level of understanding is required is unlikely to be achieved through a highly structured and orderly research approach such as the traditional survey methodology.... Instead research should try to mirror... decision-making processes which are in themselves unlikely to be orderly and structured. In-depth understanding of the influences upon the series of process involved in... managerial decision making and activity benefit from research approach which allows the phenomenon to be studied closely... longitudinally..., taking cognizance of an “insider” perspective. Thus is it unlikely that conventional quantitative research will reach the required level of penetration.... (p. 67).

This notion of “insider perspective” we shall draw upon when incorporating our training as a musician M. Mus., University of Ottawa, 2014) in our study. In doing so, we bear in mind the

research design referred to in ethnography, and sociology in particular, as “ex post facto.” As Bernard describes it in the third edition of his highly regarded *Research Methods in Anthropology* (2002), dependent variables become problematic when working with “a single group of people... measured on some dependent variable *after* an intervention has taken place.” He goes on to note, however, that: “this is the most common research design in culture change studies, where it is obviously impossible to manipulate the dependent variable,” (p. 120). In terms of our study, we hold that access is impossible to respondents prior to their close involvement with chamber music ensembles. As a result, we must control “ex post facto” by introducing our familiarity with chamber music groups as an “insider perspective” – close analysis as an aspect of experiential research. This was, in fact, the approach Professor Dineen took to work in the SSHRC study mentioned above, in collaboration with the quantitative and qualitative approaches adopted by his colleagues in sports psychology.

Our goal when designing our study was to determine whether Fransen’s (2014) model of shared informal leadership roles in sports transferred to chamber music ensembles. To do this, we used a modified version of Fransen’s (2014) survey. Our questionnaire was adapted to fit the chamber music setting and to test the emergence of leadership roles not included in Fransen’s model that might occur in chamber music ensembles. We also obtained background information on participants by selecting and appropriately modifying questions from Ford and Davidson’s (2002) survey on the social dynamics of wind quintets. Our study concentrated on three means of measuring leadership role emergence in chamber groups: the independent exhibition of leadership roles, leadership role overlap, and leadership distribution. These measures will be clarified later. Our participants were selected from a local music union directory, and the survey was hosted online. Extra leader emergence questions were designed to be exploratory and results were

intended to provide exploratory direction in future studies of leadership roles in chamber groups and in sports.

2.2. Design

The design of our study was as follows. We used a two-part questionnaire consisting primarily of quantitative questions, with the exception of one qualitative question at the end of our survey. These quantitative questions were designed to answer our first research question of whether Fransen's four leadership roles emerged in similar ways to chamber ensembles. The qualitative element of our design refers to the final question which asked respondents to the survey to describe possible "extra leaders" in their group. This qualitative question was designed to answer our second research question of whether there were leadership roles emergent in chamber ensembles that were not discussed in Fransen's framework.

2.3. Recruitment

Our study drew upon chamber musicians in the Ottawa area. To this end, we emailed members of the Ottawa Musician's Union (Local 180). With the approval of the director of the local union, we used an email list to contact 659 musicians to complete a web-based questionnaire during June of 2015. The introductory email included full disclosure of the nature of the survey, a link to the survey, and a letter of approval by the director of the local union (See Appendix D). The first page of the survey was an electronic consent form (See Appendix E). This study was approved by the University of Ottawa Research Ethics Board (See Appendix H).

Musicians were sent an email reminding them of the survey after one week, and a second reminder email was sent after 12 days of the survey's opening (See Appendix F). The survey was closed after of two weeks of operation. Respondents to the questionnaire were given the option of entering their email for a gift card raffle, one \$50 and two \$25 in value, to a local music store (see

Appendix G for a copy of the raffle win notification email). The email addresses and messages were deleted after prizes were awarded. No contact information was seen by anyone other than the researcher and research supervisor. Full anonymity was guaranteed to respondents to the questionnaire.

2.4. Respondents to the questionnaire

All of our results are obtained from individual respondents to our questionnaire and, therefore, our results reflect only the perceptions of the respondents to our questionnaire. Responses were based on a specific chamber group of which the respondents were a part of either currently or recently. Six of the responses were eliminated from our study, as they did not meet either of two requirements. Firstly, we eliminated three responses as they pertained to groups with only two members. For several reasons regarding the unique dynamics of duos compared to chamber groups of larger sizes, we chose to exclude duos from our study. We also eliminated three responses from our study in which respondents were basing responses on groups which were recently formed. We chose to eliminate these responses to avoid including groups which had not allowed enough time for their leadership roles to settle in the group.

We were left with 44 respondents to our questionnaire. The demographic information of our respondents is as follows. For age groups, three respondents were younger than 20, twelve were between 20-29, eight were 30-39, nine were 40-49, seven were 50-59, and five respondents were 60 years of age or older. A graph of the age distribution of respondents can be seen in Figure 1. The majority of our respondents' primary instruments were in the string family, with violin being the most popular at ten respondents. Detailed information on the primary instruments of our respondents can be seen in Figure 2. In terms of gender, 26 respondents were male, and 18 respondents were female.

Figure 1. Age Distribution of Respondents

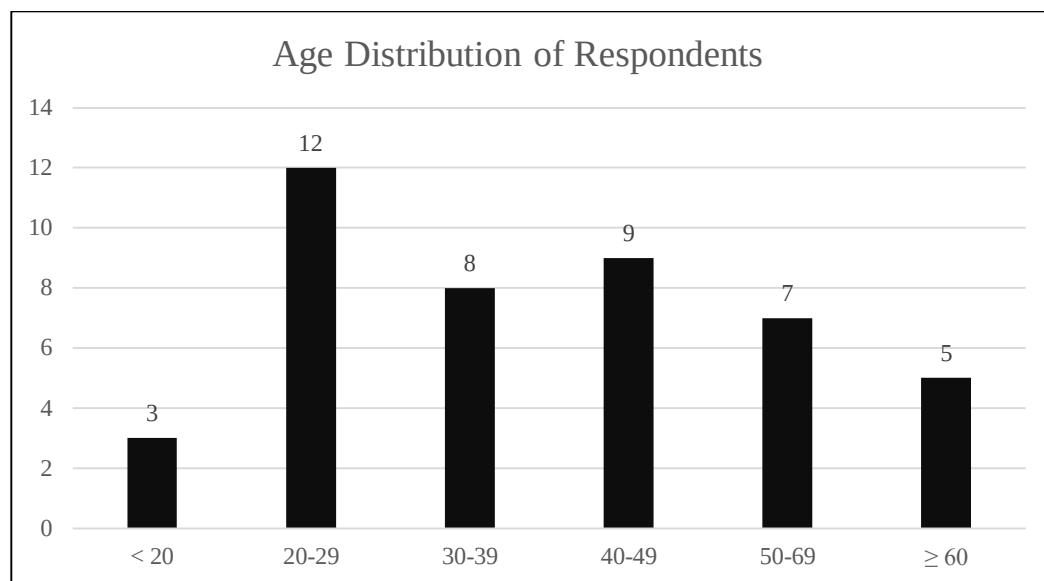
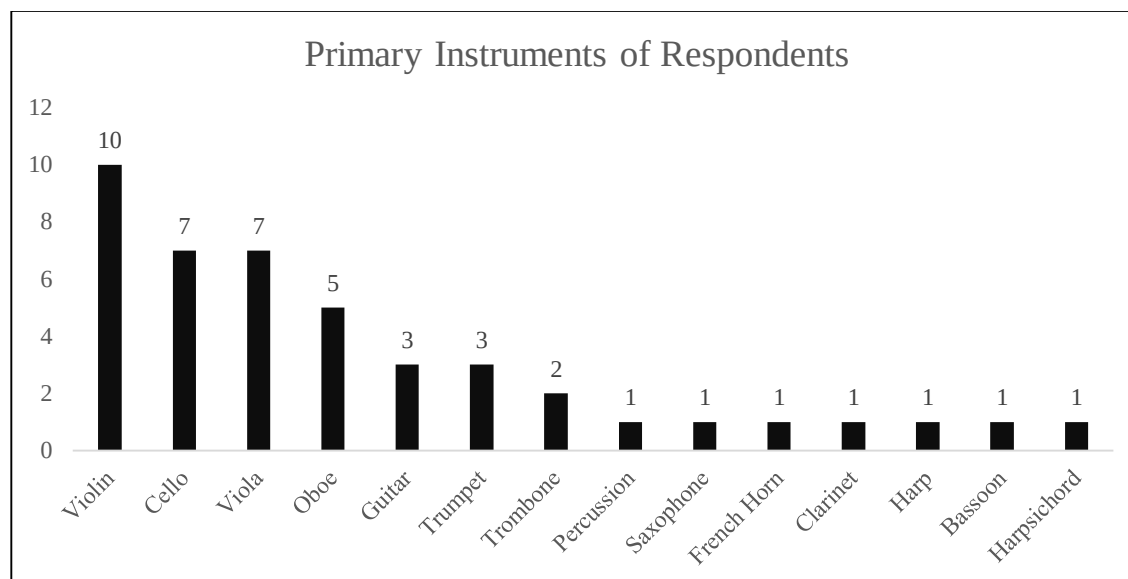


Figure 2. Primary Instruments of Respondents



The ratio of fifty original respondents out of the 659 individuals we contacted for recruitment results in a response rate of 7.6%. This response rate was lower than the average response rate (34%) of web-based questionnaires (Shih & Fan, 2008, p. 257). Several factors might have prevented a higher response rate. First, we believe that the email list was not entirely accurate or up to date. Many members of the union said they did not receive our email, and many of the email addresses on the list were no longer in use. It came to our attention after the study that individuals were not necessarily on the contact list if they were in the union, and musicians would be added to the list only if the musician deliberately asked to be. Secondly, many musicians might have been on their “off season” during the summer time, and may not have checked their music-specific inboxes, as orchestras were off season and schools were out of session. Thirdly, the members of the contact list were from a bilingual community. The study was conducted in English. Finally, many of the union members on the list might not self-identified as chamber musicians. The union list comprised soloists, chamber musicians, and orchestral musicians. It is possible that many members did not respond simply because they have not been substantially involved in chamber music.

2.5. Apparatus

The first half of our questionnaire is reproduced in Appendix B, and the second part of our questionnaire is reproduced in Appendix C. The questionnaire was designed to be answered online and by one linguistic group. Respondents to the questionnaire were emailed a link to the survey which they answered based on a current or recent chamber group in which they played. The survey was hosted on Limesurvey.org. The survey was conducted in English.

As noted above, the first section of our questionnaire was taken from Ford and Davidson’s (2002) study of wind quintets. We chose this survey as a source for questions for several reasons.

Firstly, Davidson is a particularly well-regarded researcher. Secondly, the survey used by Ford and Davidson had a large supply of well-crafted questions to choose from. Lastly, the study of wind quintets dealt with leadership in ways more applicable to our study than other survey-based studies of chamber music groups such as Murnighan and Conlon, 1990. Ford and Davidson acknowledged the possible emergence of more than one leader by including questions about ‘deputies’ in their survey, and included questions about external leader responsibilities. Other survey-based studies of chamber groups have used autocratic definitions of leadership in their surveys (Murnighan & Conlon, 1991), which did not fit with the theoretical background of our study. The use of Ford and Davidson’s (2002) survey was acquired through personal permission from Jane Davidson. Ford and Davidson’s (2002) survey is reproduced in Appendix A.

Ford and Davidson (2002) were using their questionnaire as a tool to find relationships across a wide array of variables within their study. As our study was focused primarily on the nature of leadership roles in chamber groups, we omitted many questions from Ford and Davidson’s questionnaire in building our background questionnaire. Questions deemed unnecessary for our research purposes were omitted. These questions were 1b-4a, 10, 11, 15a-18, 20, 20a, 21c-22a, 23a-25b, 26-30, 31a-42, and 43b-47a. To avoid redundancy in our research tool, we omitted questions from Ford and Davidson’s survey that dealt with leadership and deputy positions, as those issues would be addressed in the second part of our survey. These questions included questions 6-7a, 14, 19-19c, and 25. Other questions were eliminated. For instance, we left out most of the preliminary questions from Ford and Davidson’s survey to ensure anonymity of participants and subjects. Question 21 was eliminated, as 21a was deemed sufficient for our study. Question 50 was eliminated to ensure anonymity. After our eliminations, we were left with

the questions indicated in Figure 3 corresponding with their original question numbers from Ford and Davidson's (2002) survey.

Figure 3. Origins of our Background Questions

<i>Our Survey Question</i>	<i>Ford and Davidson's Survey Question</i>
Question 1	Preliminary Question
Question 2	23
Question 3	1a
Question 4	5
Question 5	8
Question 6	8a
Question 7	9
Question 8	9a
Question 9	12
Question 10	13
Question 11	15
Question 12	21a
Question 13	21b
Question 14	31
Question 15	43
Question 16	43a
Question 17	49
Question 18	48

When adopting Ford and Davidson's questions for our questionnaire, most questions were slightly modified to fit general chamber ensembles instead of wind quintets exclusively. The word "quintet" was changed to "group" whenever it appeared. Whenever quintet instruments were listed to distinguish members, we changed our wording to "Player 1, Player 2, etc." These player numbers were indicated by the participant at the beginning of the survey by listing instruments of these players in order from left to right. Some questions were modified to be better suited for simple background information, rather than the questions' original purpose as research tools. For instance, question 31 was modified to only say "do you meet socially with members of your

group?” instead of asking the participant to indicate which members of their group they do or do not socialize with. Question 21 b was changed into a multiple choice question to facilitate easier data collection. Wording in question 43 was changed to avoid colloquialisms. Time frames in question one were changed because we believed most of the groups surveyed would fall into the single category of 0 – 5 years.

The second part of our questionnaire was taken from Fransen’s (2014) study of shared leadership roles in sports teams. We used Fransen’s definitions of task, motivational, social and external leaders, modifying them slightly to fit the chamber music setting. For example, “on the field” was changed to “in rehearsal and performance,” and “teammates” was changed to “group members.” A comparison of Fransen’s (2014) definitions and our definitions, with changes in bold, can be seen in Figure 4.

Figure 4. Comparison of Leadership Definitions

Task leader

*The task leader is in charge **on the field**; this person helps the team to focus on our goals and helps in tactical decision-making. Furthermore, the task leader gives his/her **teammates** tactical advice during **the game** and adjusts them if necessary.*

A task leader is in charge **in rehearsal and performance**; this person helps the team to focus on our goals and helps in **musical** decision-making. Furthermore, the task leader gives his/her **group members** tactical advice during **rehearsal** and adjusts them if necessary.

Motivational leader

*The motivational leader is the biggest motivator **on the field**; this person can encourage his/her **teammates** to go to any extreme; this leader also puts fresh heart into players who are discouraged. In short, this leader steers all the emotions **on the field** in the right direction in order to perform optimally as a **team**.*

The motivational leader is the biggest motivator **in rehearsal and performance**; this person can encourage his/her **group members** to go to any extreme; this leader also puts fresh heart into players who are discouraged. In short, this leader steers all the emotions **in rehearsal and performance** in the right direction in order to perform optimally as a **team**.

Social Leader

*The social leader has a leading role besides **the field**; this person promotes good relations within the **team** and cares for a good **team** atmosphere, e.g. **in the dressing room**, in the cafeteria or **on social team activities**. Furthermore, this leader helps to deal with conflicts between **teammates** besides **the field**. He/she is a good listener and is trusted by his/her **teammates**.*

The social leader has a leading role besides **rehearsals and performances**; this person promotes good relations within the **group** and cares for a good **group** atmosphere, e.g. **back stage**, in the cafeteria or **during social activities**. Furthermore, this leader helps to deal with conflicts between **group members** besides the **music**. He/she is a good listener and is trusted by his/her **group members**.

External Leader

*The external leader is the link between our **team** and the people outside; this leader is the representative of our team to the **club management**. If communication is needed with media or sponsors, this person will take the lead. This leader will also communicate the guidelines of the **client** to the team regarding the **client** activities for sponsoring.*

The external leader is the link between our **group** and the people outside; this leader is the representative of our **team to our clients**. If communication is needed with media or sponsors, this person will take the lead. This leader will also communicate the guidelines of the **client** to the team regarding the **client** activities for sponsoring.

In the second part of the questionnaire, participants were asked to read the definitions of the four leadership roles and then to indicate which member, if any, best represented each leadership role. Only one player could be ascribed to each of the roles, but one and the same player could occupy several of the leadership roles. Participants were then asked if they considered any

member of their ensemble to be a leader that did not fit any of the four definitions of leadership roles. If they said yes, they were asked to give a brief description of this type of leader.

In Fransen's (2014) study of sports teams, participants were asked to indicate which leader they thought was the most important leader. We did not ask a question of this nature in our study. We believed that chamber musicians would consider each member to be equally important, even if they were considered the most representative of any leadership role, and that participants may have even taken offence to that question if it were asked of them. With informal discussions with colleagues of ours, we did have these sentiments more or less confirmed. Instrumentalists would be likely to acknowledge that their colleagues take on various roles, but would dislike ranking their colleagues from most to least important.

2.6. Measurement

As noted above, to determine the nature of leadership roles found in chamber ensembles, we used definitions of leadership roles from Fransen et al. (2014), based on an existing classification (Loughead, Hardy, & Eys, 2006). The latter comprised the leadership roles of *task*, *social*, and *external*. Fransen (2014) added the role of *motivational leader*, which was based on motivational leadership behaviors outlined in the literature. (Dupuis, Bloom, & Loughead, 2006; Holmes, McNeil & Adorna, 2010; Mosher, 1979). Fransen et al. (2014) found that each of the four leadership roles emerged as distinct roles in sports teams.

We used Fransen's definitions of the four leadership roles, but made modifications to the wording so as to make the definitions better suit the chamber ensemble setting. Provided below is a comparison of Fransen's leadership role definitions with our leadership role definitions (Figure 4). Fransen's (2014) definitions are in italics. Our definitions are in regular type. Changes are indicated in bold.

Respondents to the questionnaire were presented with these leadership role definitions and asked to indicate which member of their ensemble best represented each of these roles. Only one player could be ascribed to each of these roles, but one and the same player could occupy several or all of the leadership roles. Respondents to the questionnaire could indicate that a role was not present in their ensemble by selecting the “not represented option for that role”

Respondents to the questionnaire had the opportunity of indicating whether or not there was a leader in their group that did not fit any of the four leadership definitions. If such were the case, respondents to the questionnaire were asked to describe this extra leader with up to five keywords of their own creation. The keywords offered by respondents to the questionnaire were later analyzed and categorized based on similarity so as to suggest leadership roles not contained in our four-fold definition.

Our approach to the analysis of the results of our questionnaire is tripartite, as described in the introduction. We use simple quantitative analysis of the responses to the questionnaire, combined with a qualitative analysis of the textual responses pertinent to the last question of our leadership questionnaire. We frame both analysis by means of close, experiential research, as described above. That is to say, all the responses obtained through the questionnaire were framed by our close experience with chamber music leadership in practice.

We began by transferring all our response results to Microsoft Excel. Some of this data is displayed in detail in our Results section. Our demographic results were categorized and we would draw upon our demographic information to investigate obscure responses to the second section of our questionnaire (regarding leadership roles).

To answer our first research question, we used three means of analysis. Firstly, we were interested in the emergence of Fransen’s leadership roles in chamber groups as identified by the

respondents to the questionnaire. To measure this, we calculated the percentages of each role being represented by any player in each ensemble. This analysis would provide the frequency each leadership role's presence in chamber ensembles.

Secondly, we were interested in leadership role overlap. This is something that Fransen et al. (2014) also calculated in her study. Leadership overlap refers to situations in which one group member would occupy more than one leadership role. Examining leadership overlap would indicate whether or not the four leadership roles emerged distinctly from one another. For example, if group members who are indicated as Task leader are frequently also indicated as Motivational leader, it would bring into question whether the two leadership roles are indeed separate from one another, or are actually exhibited as one leadership role. To measure leadership overlap, we calculated the frequency of each combination of leadership roles. If leadership roles were primarily exhibited independently of each other, then this would provide evidence for the four leadership roles existing in chamber ensembles.

Thirdly, we calculated what Loughhead (2006) refers to as the *Leadership Distribution* of a group. This refers to the number of members who occupy leadership roles in a team compared to the total number of members in the team. To calculate this, we counted the number of members each respondent indicated were leaders and divided this by the total number of members in the chamber ensemble. A high Leadership Distribution would provide evidence for a shared leadership model of leadership in chamber ensembles.

To answer our second research question, we used qualitative analysis of the last two questions of our questionnaire, which asked respondents to indicate whether they perceived a member of their group to be a leader not fitting our four provided definitions, and to describe the qualities of their "extra leader." This analysis was qualitative, and was meant to be exploratory.

Descriptions of the extra leaders provided by respondents were listed, and placed into categories according to the researcher's and supervisor's best judgement. This judgement was based on experience of the researcher as a professional violist. This experience provides the third element in our tripartite analysis: the element of experiential validity, which we deem vital to the practical applications of our research.

After our experiential and qualitative analysis of the descriptions of extra leaders provided by the respondents, we compared our categorized results to literatures on leadership in sports and in chamber ensembles. Examining the literature would provide insight on our findings in this section and would guide suggestions for subsequent research, as was the intention of our second research question.

Chapter 3. Results

Chapter 3 presents a summary of the results of our investigation in the form of three tables, reproduced below as figures 5, 6, and 7. Their presence here is intended to frame the observations we have drawn elsewhere in the thesis. In essence, they present the most important salient facts, from which we have extrapolated our observations, following the framework of triangulation described elsewhere.

The first table, Figure 5 shows the instrumental makeup of each of the groups under study, with the respondent highlighted in each group. This data allowed us to consider the results of our questionnaire in terms of the differing group dynamics involved in kinds of chamber ensemble. In essence, we surveyed ensembles from trios to septets, and our respondents fulfilled a range of positions within the ensembles. Based on our experience with chamber music ensembles, we conclude that this distribution did not compromise the nature of the investigation: leadership questions arise in similar fashion in ensembles of any size, and no one player (for example, the first violin in a string quartet) is more capable of any other in serving as a respondent to our questionnaire. (We have provided demographic data in our methodology section, “Respondents to the questionnaire,” so as to give a clear description of our respondents and their perceptions of their groups.)

The second table, Figure 6, is taken from the second section of our questionnaire. In this question, we asked participants to indicate which group member, if any, represented each leadership role we provided. This table contains three columns corresponding to our four leadership roles: task, motivational, social, and external. The appropriate member of the group, as identified by our respondent, is placed in the corresponding column.

The final table we provide, Figure 7, is related to the last two questions in our questionnaire. With these last two questions, we asked participants to indicate whether they perceived any member of their group to be a leader not fitting our four provided definitions, and to describe this extra leader in five key words or less. Responses to these questions were given in the terms reproduced in the table.

We reproduce these three tables, then, as the essential summarizing pictures of the data in our study, and from which we drew observations and conclusions.

Figure 5. Instrumental Make-up of Respondent's Groups

Group Number	Player 1	Player 2	Player 3	Player 4	Player 5	Player 6	Player 7
1	Tbone	Clar	Tpt	Sax	DB	Guitar	Tpt
2	FHrn	Tbone	Tbone	Tpt	Tpt	Guitar	DB
3	Violin	Violin	Viola	Cello	Hpsc	DB	
4	Tpt	FHrn	Tbone	Tuba	Tbone	Tpt	
5	Violin	Violin	Viola	DB	Cello		
6	Violin	Violin	Piano	Viola	Cello		
7	Violin	Violin	Piano	Cello	Viola		
8	Violin	Violin	Viola	DB	Cello		
9	Tpt	Tbone	Tuba	FHrn	Tpt		
10	Violin	Violin	Piano	Cello	Viola		
11	Tpt	FHrn	Tuba	Tbone	Tpt		
12	Tpt	Tbone	Tuba	EHrn	Tpt		
13	Flute	Oboe	BN	FHrn	Clar		
14	Clar	BN	FHrn	Oboe	Flute		
15	Flute	FHrn	BN	Oboe	Clar		
16	Violin	Violin	Viola	DB	Cello		
17	Flute	Violin	Harp	Viola	Cello		
18	Violin	Violin	Viola	Cello			
19	Violin	Violin	Viola	Cello			
20	Violin	Viola	Cello	Oboe			
21	Viola	Cello	Violin	Violin			
22	Violin	Violin	Viola	Cello			

23	Violin	Violin	Cello	Viola			
24	Violin	Flute	Guitar	Guitar			
25	Violin	Violin	Hpsc	Cello			
26	Violin	Violin	Viola	Cello			
27	Violin	Piano	Cello	Viola			
28	Violin	Violin	Viola	Cello			
29	Violin	Cello	Viola	Violin			
30	Violin	Violin	Viola	Cello			
31	Violin	Violin	Viola	Cello			
32	Violin	Violin	Cello	Viola			
33	Sax	Sax	Sax	Sax			
34	Flute	Piano	Cello				
35	cello	Guitar	Cello				
36	Clar	BN	Oboe				
37	Guitar	DB	Sax				
38	Violin	BN	Oboe				
39	Clar	BN	Oboe				
40	Violin	Viola	Cello				
41	cello	Guitar	Cello				
42	Violin	Cello	Viola				
43	Violin	Piano	Cello				
44	Perc	Perc	Perc				

Figure 6. Responses to Question One of our Leadership Role Questionnaire

Group Number	Task	Motivational	Social	External
1	Player 3	NR	Player 6	Player 6
2	Player 1	Player 1	NR	Player 5
3	Player 2	Player 6	Player 3	NR
4	Player 5	NR	Player 4	Player 5
5	Player 4	Player 2	Player 1	Player 5
6	Player 3	Player 4	Player 4	Player 1
7	Player 1	Player 3	Player 5	Player 2
8	Player 2	Player 1	Player 4	Player 5
9	Player 3	Player 2	NR	Player 4
10	Player 5	Player 5	Player 4	Player 5
11	Player 1	Player 1	Player 4	Player 1
12	Player 5	Player 1	Player 4	Player 5
13	Player 4	Player 2	Player 3	Player 5
14	Player 2	Player 4	Player 4	Player 5
15	Player 2	Player 3	NR	Player 5
16	Player 2	NR	Player 1	Player 4
17	Player 5	Player 2	Player 2	Player 1
18	Player 1	Player 2	Player 3	Player 4
19	NR	NR	NR	NR
20	Player 4	Player 4	Player 1	Player 4
21	Player 2	Player 2	Player 1	Player 1
22	Player 4	Player 4	Player 3	Player 4
23	Player 1	Player 2	Player 4	Player 3
24	Player 4	Player 4	Player 3	Player 2
25	Player 1	Player 1	Player 1	Player 3
26	Player 1	Player 2	Player 4	NR
27	Player 1	Player 3	Player 2	Player 4
28	Player 1	Player 4	Player 2	Player 4
29	Player 3	Player 1	Player 4	NR
30	Player 1	Player 1	Player 3	Player 4
31	Player 3	Player 2	Player 2	Player 1
32	Player 3	NR	Player 2	NR
33	Player 1	Player 1	Player 1	Player 1
34	Player 2	Player 2	Player 2	Player 2
35	Player 1	Player 2	NR	NR
36	Player 3	Player 1	Player 2	Player 3

37	Player 1	Player 1	Player 1	Player 1
38	Player 1	Player 2	Player 3	Player 2
39	NR	Player 1	NR	NR
40	Player 1	Player 2	Player 3	Player 3
41	Player 1	Player 3	Player 1	Player 1
42	Player 1	Player 3	Player 2	NR
43	Player 3	Player 2	Player 3	Player 1
44	Player 1	Player 2	Player 2	Player 1

Figure 7. Responses to Questions Two and Three of our Leadership Role Questionnaire

Group Number	Question 2	Question 3				
1	N/A					
2	Yes	talent	personality			
3	Yes	organized	dedicated	meticulous	has more time	
4	No					
5	Yes	leadership changes between rehearsal and nonrehearsal				
6	N/A					
7	N/A					
8	N/A					
9	No					
10	Yes	player 1 and player 3 also are task leader				
11	N/A					
12	N/A					
13	N/A					
14	No					
15	No					
16	No					
17	N/A					
18	No					
19	N/A					
20	Yes	tasks	driven	focused		
21	N/A					
22	Yes	dedicated	professional	skilled	organized	timely
23	N/A					
24	N/A					
25	N/A					
26	No					
27	No					
28	No					
29	No					
30	No					
31	Yes	Musical				
32	Yes					
33	No					
34	N/A					
35	No					

36	N/A					
37	N/A					
38	No					
39	No					
40	N/A					
41	N/A					
42	N/A					
43	N/A					
44	No					

Chapter 4. Discussion

This chapter will begin with our explanation of our results as they pertain to our research questions. We will then discuss limitations of our methodology. Then, we shall discuss the theoretical and practical benefits of our findings and provide suggestions for future studies in topic.

To answer our first research question, we will discuss three elements of our results. Firstly, we will examine leadership emergence frequency. Secondly, we will examine leadership role overlap. Finally, we shall examine the leadership distribution within our respondents' chamber ensembles. To answer our second research question, we will discuss our qualitative data and relate these results back to other literatures and the experience of the researcher as a professional violist and chamber musician.

We have included three limitations of our study in our discussion. In this section on limitations, we discuss the fluid nature of roles in groups. We secondly articulate that there may have been leaders unaccounted for by our respondents. Thirdly, we touch on the intricate nature of group dynamics.

In this discussion, we have explained the theoretical and practical benefits of our research. The theoretical benefits of our research include the strengthening of the connection between sport and music, and the extension of the literature on shared leadership. We discuss practical benefits of our research in terms of chamber ensemble self-management and leadership development in chamber ensembles.

In the final section of this chapter, we offer suggestions for future studies in this area. These future studies constitute a wide array of options for future researchers. Firstly, we provide parameters for replicative studies. Secondly, we offer suggestions for studying extra leadership roles that emerged from our results. We thirdly provide suggestions for examining antecedents

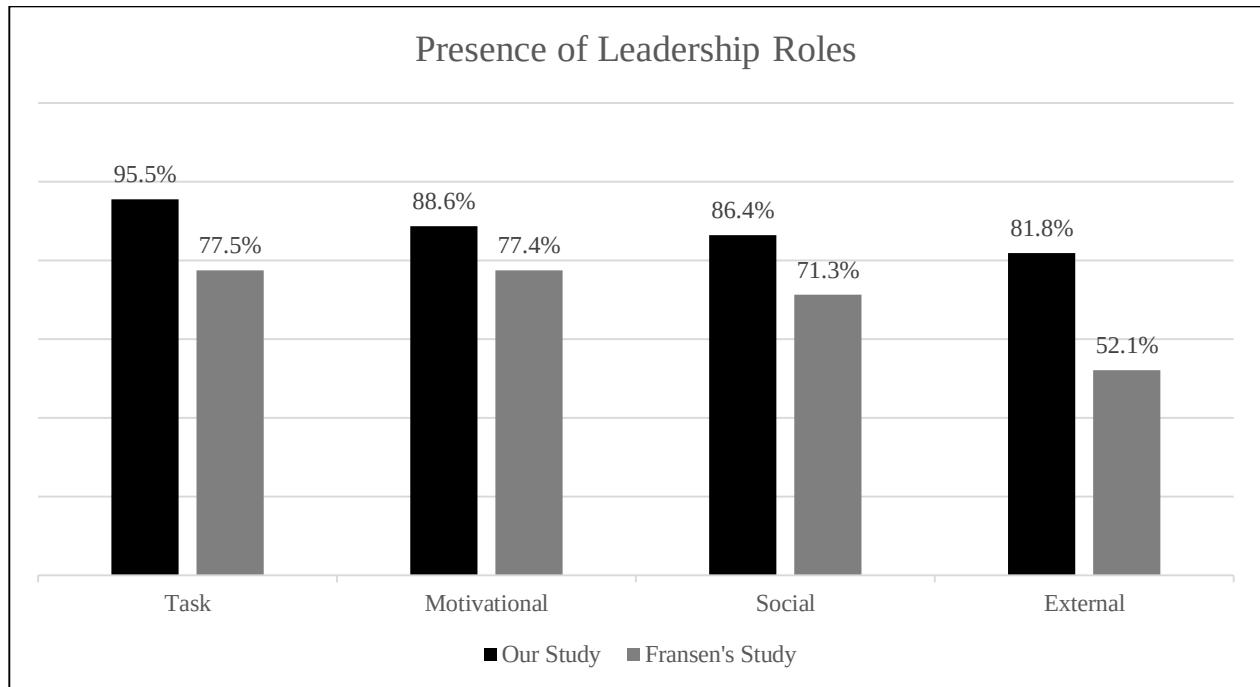
and consequences of shared leadership in chamber groups. We fourthly provide suggestions for expanding shared leadership research into other settings. Fifthly, we provide suggestions for shared leadership development research. Finally, we offer suggestions for research to further connect the literature of sport teams and chamber music ensembles.

4.1. Emergence and Overlap of Leadership Roles

Our first research question was whether the shared leadership roles found in sport psychology as defined by Fransen et al. (2014), emerged in chamber groups. When we analyzed the frequency of role representation by subjects, we found that participants overwhelmingly identified each leadership role as present in their chamber ensemble. The results are as follows, where the percentage indicates the number of respondents surveyed who indicated the presence of the given role in their chamber ensemble: Task Leader 95.5%, Motivational Leader 88.6%, Social Leader 86.4%, and External Leader 81.8%. While these findings are similar to Fransen's (2014) results in their study of the emergence of the same leadership roles in sports teams, they differ in significant regards. Fransen's results are as follows: Task Leader 77.5%, Motivational Leader 77.4%, Social Leader 71.3%; External Leader 52.1%. See Figure 8 for a comparison of Fransen's leadership roles with our study, as expressed in percentages.

The greatest difference of leadership role representation between our study and Fransen's is the emergence of the external leader. Our results showed 29.7% more representation of the external leader than Fransen's results. This difference would require an in-depth comparison of team performance in music and in sport, which lies beyond the scope of this thesis. We might speculate, however, that under the pressures of competition in sport, the presence of an external leader would lead to weakness in team performance. Lacking such competition, chamber music ensembles provide a more hospitable environment for external leadership.

Figure 8. Presence of Leadership Roles



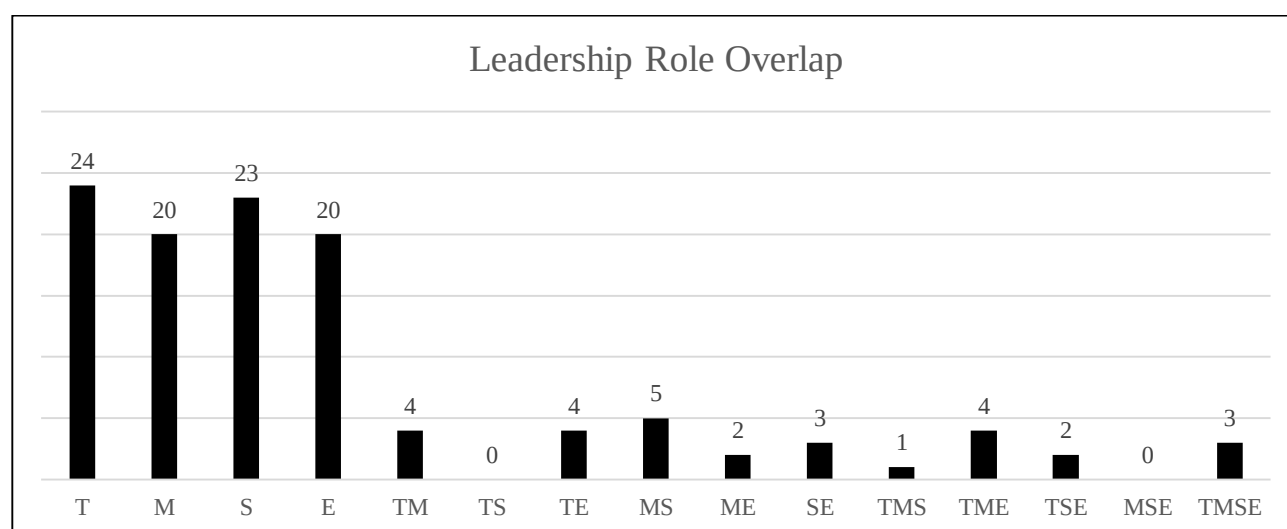
In our study, participants were instructed to choose which member of their group was the most representative of each leadership role presented to them. Participants were also instructed that they could choose the same player for multiple leadership roles. In such cases, leadership roles could overlap. That is to say, in some instances, a given player would be selected as the most representative of multiple leadership roles. If role overlap in our groups was similar or less than Fransen's results, this would point to the emergence of distinct leadership roles, rather than the emergence of one combined role. For example, if players who were chosen as Task Leader were frequently also chosen for Motivational Leader, then it could bring into question whether the two roles are indeed separate and distinct from each other.

The frequency of leadership-role overlap in our results can be seen in Figure 9, where the number of roles exhibited by a single player in an ensemble are graphed numerically. Roles are

abbreviated by their first letter (eg. Task Leader is represented by “T” when grouped with other roles). So, for example, only four players were identified in our study as fulfilling the four leadership roles TMSE (Task Leader, Motivational Leader, Social Leader, and External Leader).

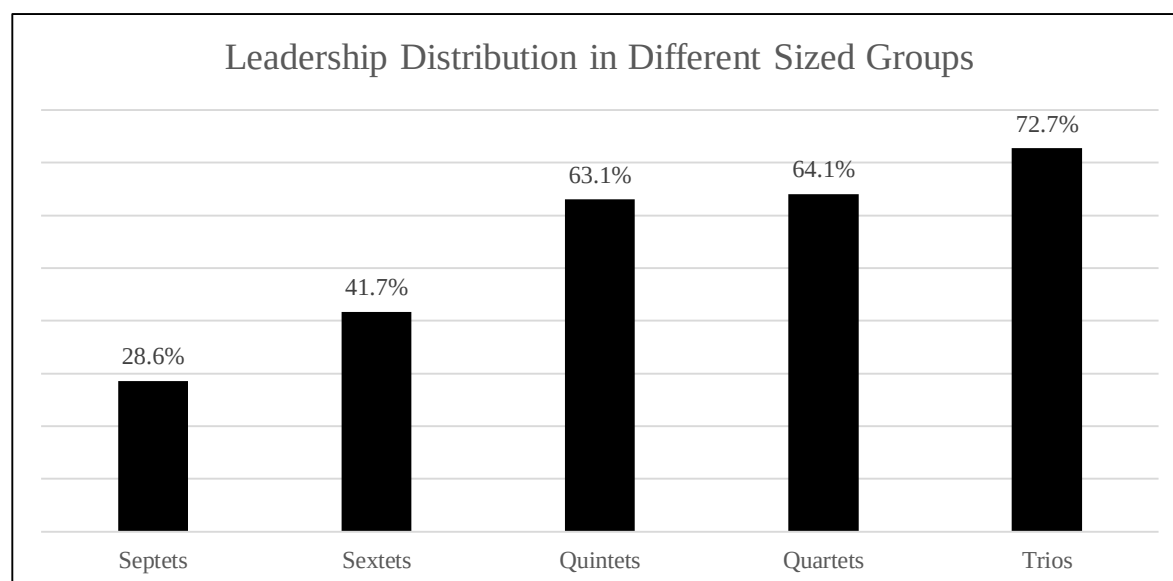
Examining this overlap of leadership roles as expressed in Figure 9, we can see that overlapping leadership roles were exhibited by individual players in the ensembles. As noted above, four participants (from a duo, two trios, and a quartet) named one player as the most representative of all four leadership types in their group. The role of task leader involved the most role overlap, overlapping with other roles a total of 22 times. The presence of all four leadership roles as represented by individual subjects shows that these roles do emerge in chamber groups. The separate and distinct combinations of emergence with minimal overlap show these roles exist as separate and distinct leadership roles.

Figure 9. Leadership Role Overlap



In Figure 10, we have shown the number of leaders in a group as our respondents identified them. Of the 50 participants, 2% listed no one as representing any leadership roles in their group; 10% listed one leader, 32% listed two, 40% listed three, and 16% listed four separate leaders in their group. The average number of ‘most representative’ leaders per group was 2.6. When compared to the average group size in our study (4.3), we can say that the leadership distribution of the ‘most representative’ leaders for each role was 60.8%. With these numbers, it is important to keep in mind that these numbers only account for the leaders who participants believed were *most* representative of the four leadership roles. It is very likely that groups had more leaders who were also representative of various leadership roles, but were not recorded in the data because another member was selected as being a stronger representation for the same role. This means that the leadership distribution ratio of 60.8% may be an underrepresentation of the reality of our 44 participating groups.

Figure 10. Leadership Distribution of Different Sized Groups



4.2. Extra Leadership Roles

Our second leadership question was aimed at determining whether there were other leadership roles found in chamber groups that have not been explicitly outlined in the sport literature. To investigate extra leadership role emergence, we asked participants to indicate whether they considered a member of their ensemble to be a leader that did not fit our four definitions of leadership roles. If participants indicated that there was an extra leader in their group, participants were then asked to describe this leader with five key words or less.

Of our 44 participants, seven (15.9%) indicated that there was an extra leader in their group. Of these seven participants, five (11.4%) described these extra leaders. The two remaining participants indicated that (to quote from responses) “leadership changes between rehearsal and non-rehearsal,” and “Player 1 and Player 3 are also task leaders.” These comments relate more to cautions to take when examining roles in groups and we will revisit these comments in the discussion section. A table of the five extra leaders and their descriptions by participants can be found in Figure 11. After analyzing these descriptions, we found that two ‘extra leader’ types emerged. As described in Figure 12, the roles of “Organizational Leader” and “Leader by Example” are present in comparable terms in the critical literature.

Figure 11. Descriptions of Extra Leaders

Leader	Description
Leader 1	Talent, personality
Leader 2	Organized, dedicated, meticulous, has more time
Leader 3	Tasks, driven, focused
Leader 4	Dedicated, professional, skilled, organized
Leader 5	Musical

Figure 12. Descriptions of Extra Leaders Categorized

Organizational Leader	Leader by Example
Organized Meticulous Has more time Dedicated Tasks	Talent Personality Dedicated Driven Focused Professional Skilled Musical

The first extra role suggested by participants was the role of the Organizational Leader. It is possible that this role resembles the formal leadership role described as ‘deputy’ or ‘organizer’ which appears in several studies of chamber music (Butterworth, 1990; Ford & Davidson, 2003; Gilboa & Tal-Shmotkin, 2012; Lim, 2014; Murningham & Conlon, 1991). This role may be formally appointed by a higher authority, as a librarian or marketing director may be appointed by a general manager. However, as chamber music groups operate autonomously, this role is typically determined within the chamber ensemble itself (Ford & Davidson, 2003; Lim, 2014; Murningham & Conlon, 1991) or explicitly understood (Blum, 1987; Butterworth, 1990).

The Organizational Leader can also be seen in in sports as playing a formal leadership role, such as a general manager, or a marketing or communications specialist. In orchestras, this position is typically formally appointed as well; organizational issues like scheduling, booking, marketing, etc. would be handled by a general manager or any other management entity. However, this role in a chamber ensemble would be internal to the group and not be held by an outside formal specialist, as chamber ensembles typically manage themselves (Blum, 1987; Butterworth, 1990; Lim, 2014; Murningham & Conlon, 1991; Poulson, 1996).

A link between the management styles of orchestras and chamber groups is drawn in the Orpheus Chamber Orchestra, discussed in our literature review. The Orpheus Chamber Orchestra is a chamber group of about 30 musicians who rotate various organizational and deputy-like roles from concert to concert (Banai, Nirenberg & Menachem, 2000; Khodyakov, 2007; Vredenburg & He, 2003). This organizational model is similar to that of the vocal ensemble discussed by Lim (2014), which was experimenting with the rotation of deputy roles to foster better understanding and leadership within the group. However, even the Orpheus Chamber Orchestra does use some external administrators. From the Orpheus Chamber Orchestra, we can see that ensembles need Organizational Leaders, and that these leaders may be more formal in larger groups. Thus, in chamber groups, Organizational Leaders may emerge as an informal leadership role, or members may elect formal deputies (Ford & Davidson, 2002).

Another explanation for the suggestion of an extra Organizational Leader in chamber ensembles is that the definition of external leader may simply need to be expanded when applied to chamber music. In sports, the external leader is responsible for representing the team to the media or other organizations. In chamber music, this member may be in charge of similar functions, while also taking care of scheduling, marketing, and other logistical responsibilities. This is in accordance with the premise that athlete or peer leadership emerges to fulfill leadership functions not performed effectively or at all by the formal leader (Zaccaro, Rittman, & Marks, 2002).

The second ‘extra leader’ that seemed to emerge from the exploratory section of our survey was a ‘Leader by Example.’ Participants described this leader as one who was talented, skilled or musical, worked hard and was charismatic. These results were certainly not based on enough evidence to propose a separate leadership role in chamber groups. Instead, we can trace these

attributes to other literature on athlete leadership (Glen & Horn, 1993; Rylander, Heden, Archer, & Garcia, 2013; Tropp & Landers, 1979; Yukelson, Weinberg, Richardson & Jackson, 1983) to gain more insight on general shared leadership in chamber ensembles.

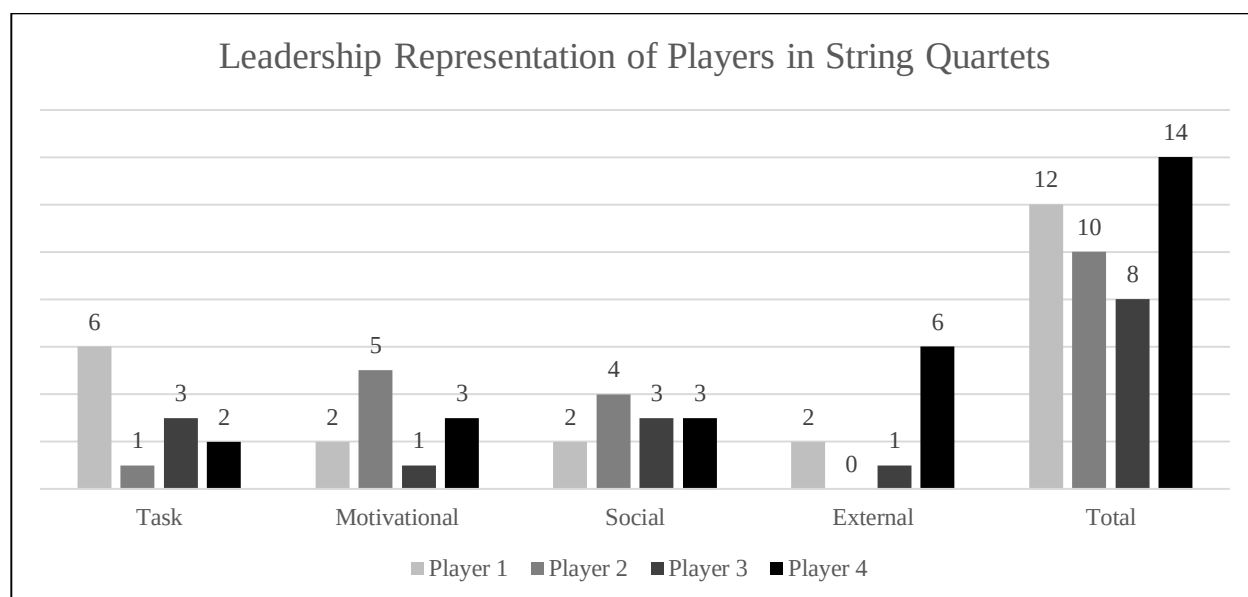
The attributes of talent, skill, and musicality are reflected in Tropp and Landers' (1979) study of female college field hockey teams. In this study, Tropp and Landers found that team members would usually indicate that other team members were athlete leaders if they held strong interpersonal connections with them, and if the athlete was a veteran. Yukelson and others (1983) found that, in intercollegiate baseball and soccer teams, peer-determined athlete leaders were the most talented and most experienced players on the team. Glenn and Horn (1993) found that athlete playing ability was positively correlated with athlete leadership in female soccer teams. Holmes, McNeil, Adorna and Procaccino (2010) found that work ethic was a crucial aspect in gaining respect from teammates and being seen as an athlete leader. Rylander et al. (2013) examined self-reported characteristics of skill and the Big-Five personality traits (De Raad, 2000) of peer leaders in elite and non-elite teams. It was found that self-reported levels of skill was a main contributing factor to peer leadership. Extending the work of Glenn and Horn (1993), Moran and Weiss (2006) examined social and psychological characteristics of soccer players. It was found that, for female athletes, psychosocial variables were predictive of self-ratings of leadership, while coach and teammate ratings were related only to ability. For male athletes in the same study, all psychosocial variables as well as ability were related to self and teammate ratings of leadership. Coaches' ratings were primarily related to ability. What we can see then, is that the 'Example Leader' might not be a separate leadership role, but predictors of athlete leadership may also be predictors of musician leadership in chamber ensembles, thus strengthening the connection of shared leadership as a concept in chamber music and in sports.

4.3. Principal Violin as Principal Leader?

While not directly pertinent to our two research questions, we were interested to see if Murnighan and Conlon's (1991) findings (which showed that the first violinist was seen as synonymous with 'leader' in string quartets) would bear comparison if viewed from a shared leadership perspective. Murnighan and Conlon's results were taken through a more traditional perspective of leadership, one which typically assumed that leadership was held by a group member who fulfilled all leadership responsibilities. We predicted that, if leadership in chamber ensembles was approached from a shared leadership perspective in which multiple members of a group can perform multiple leadership roles, then leadership would in all likelihood be evenly spread throughout each group. This is similar to one of the goals of Fransen's study (2014), which was to determine if the team captain was in fact viewed as the most important leader in teams.

To investigate the nature of leadership in string quartets from a shared leadership perspective, we examined the results of the 13 respondents to our questionnaire who responded with information about their string quartets. We then calculated the frequency of each player's representation of each leadership role. Additionally, we calculated the total number of leadership representations for each player. Results of these calculations may be seen in Figure 13.

Figure 13. Leadership Representation of Players in String Quartets



Player 1 was overwhelmingly elected as Task Leader by the groups' respondent to our questionnaire. In this way, our results concur with Murnighan and Conlon (1991), as Murnighan and Conlon, as well as respondents to their survey, were likely thinking with a leadership definition which was very task-oriented. In our study, however, the role of task leader the only leadership role in which Player 1 was the most popular representative. Player 2 was actually the most representative of Motivational and Social leadership roles, and Player 4 (the outside player) was most often indicated as External Leader. Furthermore, Player 1 did not hold the most leadership roles overall. Player 4 was perceived as holding the most leadership roles in string quartets, followed by Player 1. Player 3 was perceived as holding the least leadership roles overall.

To synthesize our findings we can say that the principal violinist in string quartets could typically be seen as principal task leader. However, the other vital leadership roles are more often held by other members of the string quartet. Thus, our results agree with Murnighan and Conlon's

study of British String Quartets (1991), while providing further detail into the leadership dynamics of string quartets not explored in Murningham and Conlon's study.

4.4. Limitations of Methodology

Our methodology was designed to determine whether Fransen's (2014) model of shared leadership roles could successfully be applied to chamber music ensembles. As a reminder, our research questions were (1) Do shared leadership roles found in sport psychology, as defined by Fransen et al. (2014), emerge in in chamber music groups, and (2) Are there leadership roles that emerge in chamber music that have not been recorded as emergent in sport psychology, (and if so, then what is the general nature of these roles)? While we have found that this application of Fransen's model of shared leadership roles was successful, we would like to stress three limitations of our methodology. Firstly, we must remember that roles are known to not be permanent (Belbin, 2012; Ker & Jermier, 1978; King, 2006). Secondly, our methodology, like Fransen's (2014), accounted for leadership only from players who were 'most representative' of each leadership role. This was primarily to align our methodology with Fransen's (2014) methodology. As a result, inevitably some leadership in our ensembles was not accounted for in our data. Thirdly, while role studies may provide excellent categorized information on groups, the reality of group dynamics is assuredly much more subtle and intricate than can be accounted for by any single role study (Blum, 1987; Butterworth, 1990; Davidson & King, 2004; Ford & Davidson; 2003; Gilboa & Tal-Shmotkin, 2012; Lim, 2014; Poulson & Abraham, 1996).

The first limitation of our methodology relates to the fluid nature of group roles. It is known that, while roles are typically exhibited by group members in predictable patterns, members do have a tendency to change roles depending on the situation (Belbin, 2012; Ford, 2006; Ker & Jermier, 1978). In Ford's (2006) study of student quartets, it was observed that students tended to

repeatedly occupy the same roles, but changed roles between and during rehearsals to accommodate for the moods of other players. In concordance with this phenomenon, one participant in our study stated that “leadership changes between rehearsal and non-rehearsal.” This response was entered into the section of the questionnaire asking participants to describe extra leaders in their group and highlights the fluidity of roles in chamber ensembles.

In this situation it is interesting to consider one of the primary elements of shared leadership, namely that leadership actions occur to compensate for necessary leadership actions not being performed or being performed poorly by the formal leader (Ker & Jermier, 1978). In groups with no formal leaders, like a chamber ensemble, it is possible that leadership roles could change depending on whether other members are performing their informal leadership roles adequately or at all. To better understand the interaction between role exhibition and fluctuation by members, more studies in this field would be needed.

The second limitation of our methodology is that not all shared leadership that was present in our ensembles was recorded. In our study, as well as Fransen’s (2014), we asked participants to indicate only one group member for each leadership role. We were interested in the transferability of Fransen’s model of shared leadership and it was thus deemed strategic to align our methodology with Fransen’s. If we attempted to measure all leadership role representation in groups, we would be required to design a new research tool to measure partial emergence, or a designated qualifying levels of leadership role representation, for example. However, doing this would then make our study substantially less grounded in previous research, as we would be considerably altering Fransen’s model and then be creating a practically novel methodology. As much as we would have liked to examine shared leadership roles in chamber groups more deeply, doing so would compromise the primary goal of our study.

Therefore, while our methodology provided important data on role emergence and overlap in chamber groups, this did mean that the total amount of shared leadership in chamber ensembles was likely not recorded in our study, as members who were second or third most representative of leadership roles were not recorded in our data. These ‘less representative’ leadership should not be forgotten about, however, for the importance of these members who were less representative of roles was stressed by participants. For example, one participant entered “Player 1 and Player 3 are also task leader” in the last question, which was intended for the description of extra leaders in the chamber group. Another participant, in an email regarding the study, wished to clarify that all members of their group exhibited elements of all the leadership roles and that decisions were made democratically, stating specifically that “all group members are leaders.”

What we can glean from these responses from participants is that there may be a much deeper amount of leadership occurring in chamber ensembles than our data suggests. So, while the average percentage of leadership representation in an ensemble in our data was 62.9%, it is likely that this number is quite higher in actuality. However, we must remember that our study’s main goal was to measure the fittingness to chamber groups of Fransen’s (2014) model of shared leadership model, and our study does not attempt to go beyond what Fransen et al. attempted to accomplish in her model. Further research pertaining to the true depth of shared leadership representation in chamber groups would require further studies that would include different research tools.

The last limitation of our methodology concerns the intricacy of chamber group dynamics. While role studies are very informative and provide educated insight into the dynamics of groups, the dynamics of groups are much more complex, subtle, and intricate than any role study could

suggest. In regards to our study, although we have found distinct emergence of leadership roles, we must remember that many chamber groups handle decisions democratically (Blum, 1987; Butterworth, 1990; Davidson & King, 2004; Ford & Davidson, 2003; Poulson & Abraham, 1996), and that nonverbal cues dominate the process of leadership during the playing of music (Blank & Davidson, 2007; Blum, 1987; Butterworth, 1990; Davidson & King, 2004; King, Ginsborg, 2011; Lim, 2014; Murnighan & Conlon, 1991; Williamon & Davidson).

To illustrate the democracy of a chamber group, we can consider hypothetical chamber group which contains a task-leader cellist. This cellist may primarily initiate discussion on musical matters, but this does not mean that the rest of the group silently conforms to the will of this cellist. In reality, all players are likely to contribute to discussion of musical matters (Blum, 1987; Butterworth, 1990; Poulson & Abraham, 1996). Perhaps the cellist may initiate conversation on the matters most frequently, or is best at synthesizing the ideas of the group. We can see evidence of this democracy in chamber groups from Allmendinger and Hackman's (1996) study of job satisfaction in various careers, in which chamber musicians reported being very satisfied with their opportunities for self-expression and having their opinions heard by colleagues, compared to members of symphony orchestras. We can also see instances of the democracy of chamber groups in the various case studies of music ensembles (Blum, 1987; Butterworth, 1990; Poulson & Abraham, 1996). In these three studies, we can see detailed descriptions of how each of the Guarneri, Detroit, and Portland String Quartets handled almost all issues democratically, although some members naturally gravitated towards certain responsibilities.

Another element of the democratic nature of chamber groups that our study did not cover is the use of nonverbal cues as leadership during the playing of music. Though this topic was

beyond the scope of our methodology, we would like to stress that nonverbal cues during the playing of music are crucial to leadership and group dynamics in chamber ensembles. These nonverbal cues have been mentioned in many of the case studies in our theoretical framework (Blum, 1987; Butterworth, 1990; Lim, 2014; Murnighan & Conlon, 1991), and have also been examined using other research methods in a neighboring body of literature (Blank & Davidson, 2007; Davidson & King, 2004; Kawase, 2014; King, Ginsborg, 2011; Seddon, 2009; Williamon & Davidson, 2000).

Providing an in-depth explanation of the topic of nonverbal cues in chamber groups is beyond the scope of this thesis. However, we can supply a few key points in summary of these studies. First, nonverbal cues are the primary way of communicating during the playing of music in chamber groups (Blum, 1987; Butterworth, 1990; Lim, 2014; Murnighan & Conlon, 1991; Seddon, 2009). Secondly, these nonverbal cues are typically seen as exhibitions of leadership by members (Blank & Davidson, 2007; Butterworth, 1990; Davidson & King, 2004; King & Ginsborg, 2011). Thirdly, these leadership cues are typically dictated by musical necessities, like showing the phrase of a melody or the subdivisions of a tempo change, for example (Blum, 1987; Butterworth, 1990; Kawase, 2014; King & Ginsborg, 2011; Lim, 2014; Murnighan & Conlon, 1991; Seddon, 2009) and the type of nonverbal cues change depending on the musical demands (Blum, 1987; King & Ginsborg, 2011; Seddon, 2009). These nonverbal cues, while vital to the concept of leadership in chamber ensembles, were not included in our study in an effort to keep focused on our two research questions. However, we would recommend that any further research on leadership in chamber groups should keep in mind both the social dynamic findings from our research and findings from studies on nonverbal cues in ensembles.

To summarize the limitations of our methodology, first we must remember that roles are fluid and are likely to change to compensate for the moods of ensemble-members (King, 2006), or depending on the external situation (Belbin, 2012; Ker & Jermier, 1978). Secondly, our study did not account for members who were second or third most representative of leadership roles, which means that there was likely emergent leadership in our participating groups that was not accounted for in our data. Lastly, the study of leadership roles is only a piece of the entire real-life situation of chamber ensembles. While some members may hold leadership roles, decisions of ensembles are largely decided democratically (Banai, Nirenberg & Menachem, 2000; Blum, 1987; Butterworth, 1990; Davidson & King, 2004; Ford & Davidson, 2003; Khodyakov, 2007; Lim, 2014; Vredenburg & He, 2003), and the leadership of nonverbal cues during the playing of music is also a part of the larger leadership picture of ensembles (Blank & Davidson, 2007; Davidson & King, 2004; King, Ginsborg, 2011; Williamon & Davidson, 2000).

4.5. Theoretical Benefits of Research

One of the goals of this study was to strengthen the literature connecting the two fields of sport and music. With our findings we have both strengthened and broadened this literature. We say that the literature is strengthened to mean that our results further confirm the already agreed upon connection between sport and music. We say broaden to mean that our findings add elements of group dynamics to this connection, as the existing literature connecting the two fields has only dealt with elements pertaining to individuals in both fields. In this section of the discussion pertaining to theoretical benefits of our research, we will provide more detail on how our findings connect sport and music psychology literature, and how our findings broaden the overall arc of shared leadership research.

The connection between the two fields of sport and music, while in its infancy, has been advocated by sport psychologists, (Hamilton & Robson, 2006; Hays, 2012), musicologists (Clark & Williamon, 2011), young musicians writing for academia (Bellon 2006; Deutsch, 2015; McAllister, 2013; Olevsky, 2012), and musicians writing for a more lay audience with books like *A Soprano on Her Head* (Ristad, 1982) and *The Inner Game of Music* (Green & Gallwey, 1986). Recently, musicians have needed to seek the help of sport psychologists and refer to literature on athletes to gain the most substantial and well-informed aid for any mental or social hurdles that arise in the arena of music performance. However, as the research connecting the two fields continues, musicians are gaining more and more directly pertinent applications from this interdisciplinary literature. Subsequently, as the gap between sport and music performance continues to be bridged, athletes, musicians, and scholars in both the fields of sport and music psychology will have access to a wider, more diverse, and interchangeable intersection of knowledge, allowing for more informed applications across all involved fields. Our study provides musicians with a deeper knowledge of leadership in chamber groups. Such a knowledge was only possible because of our interdisciplinary theoretical framework.

Along the same lines of the benefit of connecting the sport and music literature, but distinct enough to be worth mentioning separately is the other theoretical benefit of our research. This second theoretical benefit of our research is the extension of the literature on shared leadership. To offer a brief review, we have our theoretical framework from the field of sport psychology (Fransen et al., 2014; Loughhead and Hardy, 2006). Fransen et al. (2014) and Loughhead and Hardy's (2006) theoretical framework is based on the concept of shared leadership, which was originated and developed in industrial organizational psychology (Pearce & Conger, 2002). Our research then, has taken the concept of shared leadership and furthered its reach, bringing it into the arena of

chamber music ensemble research. This opens up a highway of theoretical information that travels from industrial organizational psychology, through sport psychology, into chamber music.

Primarily, we can have a better understanding of predictors and outcomes of leadership in chamber groups, knowing that the concept of shared leadership does transfer to chamber groups. Regarding predictors of shared leadership in teams, Carson, Tesluk, and Marrone (2007) found that internal elements of shared purpose, social support and voice, and the external element of coaching by a leader all contributed to levels of shared leadership in groups. The same study also provided information on outcomes of shared leadership; groups with higher levels of shared leadership received higher ratings of performance by clients.

4.6. Practical Benefits of Research

The theoretical benefits of our findings provide the opportunity for two practical benefits. Firstly, chamber musicians can more insightfully build, manage, and maintain their chamber groups. Secondly, strategies used for coaches to develop shared leadership in sports teams may transfer to chamber music coaches as well. In this section of the discussion we will unpack these two ideas and provide specific examples and strategies for the implantation of our research benefits.

With the knowledge that similar leadership roles emerge in both sports teams and chamber groups, musicians can more skillfully manage the social aspects of their ensembles. For instance, in sports, it is known that teams that have equal representation of the three leadership roles of task, social, and external leaders breed player satisfaction of performance and group integration (Eys, Loughhead & Hardy, 2007). Using this knowledge, newly forming chamber groups, or chamber group searching for new members, might want to search for members whose leadership roles balance each other out.

Additionally, musicians should keep in mind that the rule of “the more the merrier” seems to apply to shared leadership in sport (Neubert, 1999). Crozier, Loughhead and Monroe-Chandler (2013) found that coaches preferred to have 85% of their team be comprised of athlete leaders and suggested that more team leadership would enhance team resources, role clarity, cohesion, team communication and athlete satisfaction. Using this insight from sport psychology, musicians can presume that if they find members who strongly represent a diverse array of leadership roles, their chamber group will theoretically function much more effectively and happily.

The second main practical benefit from connecting sport psychology and music performance psychology at the group level is likely to arise in educational settings, in which chamber ensemble coaches can look to studies of shared leadership in sport psychology to gain an understanding of how to foster and develop shared leadership in chamber ensembles. Our attitude is then in line with many of the researchers of shared leadership in sports, who say that coaches should use this information on shared leadership to better coach athletes and foster leadership development. Loughhead, Munroe-Chandler, Hoffman, and Duguay (2014) suggest that coaches should identify informal leaders and guide them to further develop their leadership abilities. Loughhead et al. (2014) cites Price and Weiss (2011) and Bucci, Bloom, Loughhead, and Carron (2012) in this claim. Vincer and Loughhead (2010) state that coaches should foster the development of athlete leader behaviors, thereby influencing the team environment.

While the possible implementation of a shared leadership development strategy is encouraged by these researchers, the details of implementation are not as clear. This is an issue that is common in many leadership development initiatives in sports (Boon & Gilbert, 2010). It is then important for us to provide reference to a leadership development strategy that is rooted in the shared leadership theoretical framework. While there are numerous leadership development

programs in sport and business, many of them are based in theoretical frameworks that focus primarily on developing formal leaders, like team captains or general managers. We are more interested in a leadership development strategy that focuses on improving each ensemble member's contribution to the groups entire leadership conglomerate.

Seeking a leadership development strategy in sports that fits our theoretical framework of shared leadership significantly narrows our options for a proposed leadership development strategy. Loughhead et al. (2014) states that there are no published theoretically grounded or empirically based shared leadership development programs in sport. Loughhead et al. (2014) attributes this to the adolescence of the literature on shared leadership in sport. Research in the field is still in the phase of testing the fit of proposed models (as we have done), and examining predictors and outcomes of those models. Research in shared leadership in sport has not yet attempted to manipulate antecedents or to implement interventions into the newly tested models of shared leadership (Loughhead et al., 2014).

Thus, in order to find a leadership development strategy that fits our theoretical framework, we must trace our framework to its origins in industrial organizational psychology (Pearce & Conger, 2002). This is in tandem with the recommendation of Loughhead et al. (2014) regarding the selection of a shared leadership development strategy for sport. In particular, Loughhead et al. (2014) recommends Conger's (1992) four elements of leadership development. These four elements are (1) conceptual development, (2) personal growth experiences, (3) leadership behavior development, and (4) feedback. In the remainder of this discussion, we intend to outline Conger's (1992) leadership development strategy, providing supplemental advice for its implementation and illustrate possible implementations in chamber music for each of Conger's four elements of leadership development.

Conger's (1992) four elements of shared leadership development first emphasize the importance of conceptual development. Since there are so many definitions and approaches to leadership, Conger stresses the imperativeness of coaches providing a well-delineated model of shared leadership and foster a clear understanding of the concept. Conger recommends that Celladurai and Saleh's (1980) Multidimensional Model of Leadership (MML) or Bass and Avolio's (1995) Full Range Leadership Model of Leadership (FRML) should be used as overviews of leadership theory, and that coaches clarify myths about leadership, such myths being that leader are born and cannot be developed, or that leadership is centralized in formal leadership roles.

In music, this leadership conceptual development could take place with formal workshops, reading material, or with time taken out of rehearsal to explicitly explain the concepts and models suggested. However, sport research in life skills development suggests that high school coaches who were deemed extremely successful at developing life skills made a point to integrate life skills coaching into regular practice, rather than treating life skills education as an endeavor separate from regular practice (Collins, Gould, Lauer, & Chung, 2009). Ensemble coaches, and conductors, can likely provide conceptual development of leadership in small portions by positing to the players that any one of them can lead and that shared leadership is more effective than formal leadership (Marotto, Roos & Victor, 2007; Pearce & Conger, 2002).

The second element in Conger's (1992) leadership development elements is the opportunity for personal growth experiences. This element is seen by other researchers other than Conger as a very successful means of growing leadership in sport teams (Gould & Carson, 2008; Gould, Collins, Lauer, & Chung, 2007; Holt, Tink, Mandigo, & Fox, 2008; Loughhead et al., 2014). In fact, many researchers in the field will state that the only real method for developing athlete leadership is by real life leadership experience (Grandzol, Perlis, Draina, 2010; Holt, Tink

& Mandigo; 2008; Vidic & Burton, 2011). When referring to the development of life skills in young athletes, Holt, Tink & Mandigo (2008) stated that coaching life skills was less about the direct coaching life skills, but more about creating conditions in which they can be self-generated, revealed and reinforced. Gould, Collins, Lauer, and Chung (2007) also found that, in high school football, the most successful way to develop leadership in athletes was to provide the athletes with leadership experiences.

Loughead et al. (2014) stated that providing athletes with leadership opportunities is difficult to do in sport, considering that there are only one or two team captain positions on any given team. In music, contrarily, providing leadership opportunities may prove much easier. A coach of a chamber ensemble can utilize the innate shared leadership aspect of written music; the melody transfers from one player to another, which is substantiated by case studies of chamber groups (Blum, 1987; Butterworth, 1990; Poulson & Abraham, 1996; Lim, 2014), and other studies of chamber groups (Ginsborg & King, 2012; Glowinski et al., 2013; Glowinski et al., 2014; Timmers et al., 2014). To apply this knowledge, an ensemble coach could encourage all players to lead well during soloistic moments in the music, or during tempo changes. Thus, ensemble coaches could use the leadership opportunities inherent in the music itself to foster leadership growth in their ensembles.

The third element of Conger's (1992) suggestions for developing athlete leadership is leadership behavior development. Loughead et al. (2014) clarified this tactic by stating that athlete leadership development should include the development of transformational and transactional leadership behaviors, with the exception of negative behaviors like Management-by-Exception and Autocratic Behavior (Chelladurai & Saleh, 1980). Loughead et al., (2014) proposed that Sosik and Jung's (2011) Full Range Leadership Development Model could be used in this endeavor,

because of its authority on transformational and transactional leadership. Hopton, Phelan, and Barling (2007) explain that transformational leadership from teammates is created by displaying support, stimulating challenge and exhibiting moral perspective, and can inspire other members of a group to become leaders in the future.

There are a few things ensemble coaches could do to improve the transformational leadership of their groups. Firstly, if the ensemble coach should ensure that each group has at least one member who exhibits leadership qualities (if the coach has any say in who will be in their group). This will likely promote more leadership in the group, as transformational leadership is seen to stimulate more leadership in groups (Hopton, Phelan, & Barling, 2007). Secondly, coaches could identify and encourage transformational leadership behaviors in their ensembles. In terms of the development of our shared leadership roles (Fransen, 2014), coaches should understand the different leadership roles and promote and identify the behaviors of those roles in their chamber ensembles.

The final component of Conger's (1992) four elements of shared leadership development in teams is feedback that would help team members understand their strengths and weaknesses. With this suggestion of implementing a feedback system, Loughhead et al. (2014) advocates using Lepsinger and Lucia's (2009) 360 degree feedback model when providing athletes with leadership feedback. The "360" in 360 degree feedback refers to multiple angles of input athletes would receive feedback from: coaches, other players, management, and third parties (Warech et al., 1999).

Carey (1995) advises that, in order for feedback to be the most effective, participants should; understand feedback as a beginning to a larger process, consider enlisting the help of a third party, not to make the feedback a primary determinant of a players' salary or other rewards,

and guarantee that the athlete will be anonymous. Carey also suggests that leaders of the organization should support the 360 process. Further guidelines for this feedback are provided by Ende (1983), stating that feedback should be viewed cooperatively, be well-timed and expected, be supported by first-hand data, focus on changeable behaviors, use descriptive language, focus on specific behaviors, offer subjective data and label it as such, and deal with decisions and actions rather than assumed intentions.

One challenge of implementing a feedback system into chamber groups is that chamber groups, by design, only consist of about three to five members, making anonymous feedback difficult to execute. Another challenge in implementing a feedback system for leadership in chamber ensembles is that chamber ensembles already receive a wealth of critiquing from their coaches on a regular basis. The challenge for the coach would then be to incorporate leadership feedback into regular coaching, as it has been affirmed by several researchers in sport psychology that successful coaches achieved life skills development in athletes by incorporating leadership development into regular practice.

4.7. Observations from the Researcher

In addition to the practical applications of our research, we would like to supply observations from the researcher's own experiences in chamber ensembles. This is the third element of our tripartite approach to our study and we use this to confirm that our data indeed reflects a surface of the importance and potential benefits of shared leadership in chamber ensembles. The remainder of this section is written from the researcher's perspective.

When thinking about my own experience in chamber ensembles and the shared leadership dynamics in the groups of which I have been a part of, three contrasting string quartets come to mind. The first group had strong leadership representation in the first few months, but social and

motivational leadership began to dwindle and the quartet became ineffective. The second group had fixed leadership roles and was very successful for several years. The third group, of which I am currently still a part, has full leadership in which all members fulfill all leadership roles.

The first group was a student string quartet. We originally formed to work on Schubert's "Death and the Maiden" String Quartet. During the first few months, all leadership roles were fulfilled by members. Three members were interchangeably Task Leader. All four members were Social and Motivational Leaders at different points. External Leader responsibilities were fulfilled by the group member who was the closest with the external contact.

In the first few months of working together, we made significant progress on the Schubert. However, as the school year went on, other engagements began to take priority in members' lives. While Task leadership and External leadership was still consistently exhibited, the group began to lack social and motivational leadership. In the second semester of working together, our group's morale was very low. We did not finish the Schubert, and only managed to complete working on an eight minute contemporary piece of repertoire over four months of work. The group did manage to produce a successful recording of the contemporary piece and perform the piece at several local venues, it was clear that the group did not perform at their full potential, given their talent as individuals.

The second group was a student string quartet that lasted for three and a half years with only one violinist change halfway through the groups' life. In this group, it could be said that leadership roles were predominately fixed. We even explicitly decided who our 'leader' was. This elected individual acted as external leader for all engagements, and was predominately in charge of rehearsals. This leader was one of our violinists. Even though our two violinists would alternate positions for different pieces, the one remained 'leader.' Also, although we had one explicitly

designated leader, all members participated in musical decisions. The members of the group who were not the primary 'leader' actually took the lead in motivational and social leadership.

The group was highly successful for an undergraduate quartet at our music school. We consistently produced recitals, played at several local venues, and managed to stay together for three and a half years. The group had to disband after members of the group graduated and moved away from the city to further their education.

This group is interesting in that it highlights a concept touched upon by King's (2006) study of student roles in quartets. King found that if groups had a fixed leader, other roles would be more stable and the group would tend to be more successful. Our string quartet had a consistent 'leader,' who could be seen as External Leader through Fransen's framework. The other leadership roles of the quartet were fixed, but not explicitly. This full, fixed shared leadership proved to be adequate for longevity, success, and satisfaction.

The third group I wish to discuss is a group which is currently still together. The group started working together about six months ago, and is still working well together. In this group, all leadership roles were filled almost equally by every member. Essentially, each member of the quartet was similarly likely to fulfil any leadership role for a situation. All members participate strongly in Task leadership during rehearsals. Social and Motivational leadership exhibition would change based on the moods of the individual members. External leadership responsibilities would be delegated to members. These delegations depended on the current quartet workload each member was currently carrying. In this way, all members exhibited all leadership types.

This group has been worked extremely well together and has performed for an unusual amount of venues for being together for such a short time as a student ensemble. The group has made its way through Debussy's string quartet, and is currently working on Pavel Haas' second

string quartet, intending to perform both pieces in a recital in three months. The group's satisfaction and comradery is very high and it seems likely that the group will stay together for some time.

4.8. Future Studies

After conducting our research, we have formulated suggestions for future studies. The first set of suggestions will pertain to hypothetical replications of our current study. Next, we will supply a set of suggestions for investigating possible extra leadership roles that emerged in our study. Also, we provide recommendations for testing antecedents and consequences of shared leadership as a predictor of consequences found in sport and industrial organizational psychology. Finally, we will propose a set of suggestions pertaining to other topics that may further connect teams and chamber ensembles.

One suggestion we would make for possible replications of our study pertains to the method in which we contacted our respondents to our questionnaire. When contacting potential participants, we used a database of individual musicians involved in a local musicians union. This provided two drawbacks. Firstly, some members of this database were not chamber musicians, or did not have a regular chamber group with which they performed. Additionally, some participants responded regarding duos: groups which we chose to leave out of our study.

Instead of contacting individual musicians from a list, we would recommend contacting established ensembles. This would offer more control over group size, type, and longevity. Also, this would allow for the perceptions of all group members to be included in the results. Our results are from the perceptions of individual respondents and we believe it would be beneficial to gather information on the perceptions of all group members in future studies.

A second suggestion we have for replicative studies pertains to the way in which we asked respondents to indicate which group member represented each leadership role. Earlier in this chapter, we have explained that, because we only asked respondents to select the player ‘most representative’ of each role, there very well may be many leadership role representations unaccounted for in our results. To have a better calculation of the distribution of leadership in ensembles, we would recommend having respondents list all group members who exhibit each leadership role, possibly ranking the members from most to least representative. This would provide deeper information on the leadership roles exhibited by members in chamber ensembles.

In our study, we found evidence that there may be other leadership roles than those defined by Fransen et al. (2014) that are found in chamber ensembles. These two roles could possibly be the organization leader and the Leader by Example. While evidence exists in the music literature that would support the suggestion of a separate “Organization Leader” (Banai, Nirenberg & Menachem, 2000; Butterworth, 1990; Ford & Davidson, 2003; Gilboa & Tal-Shmotkin, 2012; Khodyakov, 2007; Lim, 2014; Murningham & Conlon, 1991; Vredenburg & He, 2003) the role of “Example Leader” suggested at by some of our results may simply be a combination of general characteristics found in athlete leadership literature (Glen & Horn, 1993; Holmes, McNeil, Adorna & Procaccino, 2010; Tropp & Landers, 1979; Yukelson, Weinberg, Richardson & Jackson, 1983).

As the section of our questionnaire pertaining to the extra leader roles was only intended to be exploratory in nature, there are many questions regarding these extra roles that other studies should investigate. One question to answer would be whether the Organizational Leader is indeed a different leadership role than the external leader role. To investigate this question, a study could be designed which asks ensemble players to indicate which leadership functions other members of the group perform. These functions would be elements of Fransen’s (2014) leadership roles. The

sets of exhibited functions by individual players would shed light on the distinctness of the five possible leadership roles. In light of the same question, another study could be done similarly to ours, but with the inclusion of “Organizational Leader” as one of the leadership roles. Researchers conducting this study should specifically look at the overlap of exhibition of the external and Organizational Leadership roles to determine whether external and organizational are two distinct leadership roles. It is our hypothesis that the Organizational Leadership role in (in chamber ensembles) is an extension of the external leadership role.

To investigate the notion of the Example Leader, researchers may want to investigate predictors of shared chamber ensemble leadership to see if the Example Leadership role is simply a set of elements present in general shared leadership. In sports, it has been found that interpersonal connectedness with other members, veteran status, talent, and work-ethic were all predictors of athlete leadership (Glenn & Horn, 1993; Holmes, et al., 2010; Tropp & Landers, 1979; Yukelson, et al., 1983). Participants in our study suggested that musicality, talent, and dedication may also be predictors of leadership in ensemble-members. Researchers investigating shared leadership in ensembles should then conduct similar studies as those listed in this paragraph while slightly modifying categories to better fit the chamber ensemble setting. Another way of approaching the question would be to ask participants to indicate who in their ensemble they considered to be a leader, and to list the reasons why they thought so. Through qualitative analysis, a set of characteristics of shared leadership in chamber ensembles could possibly be developed.

Shared leadership has been found to have strong predictive validity of positive consequences in sport teams (Crozier, Loughhead & Monroe-Chander, 2013; Eys, Loughhead & Hardy, 2012; Vincer & Loughhead, 2010) as well as in the business world (Pearce & Sims, 2002; Pearce, Yoo, & Alavi, 2003). To further strengthen the connection between the leadership roles

in chamber music and sports teams, replicative studies could be done to test the effects of shared leadership and similar benefits found in sport psychology. For example, Fransen's model and the Athlete Satisfaction Questionnaire (ASQ [Reimer, 1998]) could be used in one study to measure the relationship between leadership presence and satisfaction among chamber ensembles.

In their study of British String Quartets, Murnighan and Conlon (1991) created an extensive means of measuring ensemble success. This tool contained ticket sales, cd sales, media presence, along with other measures. It would be very beneficial to the literature for a study to utilize a similar tool to measure ensemble success, and to pair that tool with a tool to measure shared leadership in chamber ensembles, like Fransen's (2014) tool. This would measure whether shared leadership was an effective predictor of success in chamber ensembles. To further clarify this relationship, it may be beneficial to measure other kinds of leadership in the ensemble (the transformational leadership of the first violinist, for example). This would determine if shared leadership was a better predictor of success than other types of leadership previously investigated in chamber ensemble literature.

As discussed earlier in this section, it would also be helpful to investigate predictors of player leadership in chamber ensembles. This could be accomplished by asking players open-ended questions relating to who players consider to be leaders and why. Predictors of athlete leadership in sports so far include talent (Glen & Horn, 1993; Yukelson, et al., 1983), experience (Tropp & Landers, 1979; Yukelson, et al., 1983), interpersonal connectedness (Tropp & Landers, 1979), and work-ethic (Holmes, et al., 2010).

One area that shared leadership should be investigated is in the orchestra. Our study was focused on chamber groups, but we suspect Fransen's model (2014) may also transfer well to orchestras. With the presence of the conductor and management staff, the hierarchical structure

of an orchestra includes more formal leaders than a chamber ensemble. However, it is likely that shared leadership roles also emerge in orchestras as they do in chamber ensembles and sports teams.

Shared leadership in orchestras has already been investigated from various perspectives by Koivunen (2013) and Hackmnan (2012). There is also an emerging body of literature calling for the de-glorification of the heroic conductor in order to focus on leadership, among other dynamics, within the ensemble (Hallmark, 2000; Lebrecht, 1990; Marotto, Roos, & Victor, 2007). Investigating shared leadership roles in orchestras could provide some of the same benefits as our study. Namely, the overall concept and applicability of shared leadership can be strengthened, the connection between sport and music can gain more breadth, and orchestras could then be more informed on the building, maintaining, and coaching of their ensembles by strengthening their overall leadership capacities.

An area of empirical research of shared leadership that is lacking in both music and sport is the topic of leadership development. So far, in sport, Loughead et al. (2014) has advocated the use of Conger's (1992) four elements of leadership development for coaching in sport, and many others have their recommendations and cautions for the implementation of this method (Carey, 1983; Duguay, Loughead and Munroe-Chandler 2014; Warech et al., 1998; Ende, 1983). It would be helpful to longitudinally implement Conger's leadership development methods and examine the results, possibly by measuring success with a similar tool to Murnighan and Conlon's (1991).

Another approach to examining the development of shared leadership in ensembles would be through case studies on ensemble coaches who were deemed successful at fostering leadership in their ensembles. It would be interesting to see if these successful coaches implement similar strategies as paralleling coaches in sport (Camire, et al., 2011; Collins, Gould, Lauer, & Chung,

2009; Conroy & Coatsworth, 2006; Danish, Forneris, Hodge, & Heke, 2004; Gould, Collins, Lauer, & Chung, 2007; Holt, Tink, Mandigo & Fox, 2008; Petipas, Cornelius, Van Raalte, & Jones, 2005; Vidic & Burton, 2011). It has also been found that many coaches who were successful at developing life skills lacked specific strategies for doing so (Boon & Gilbert, 2010; Flett, Gould, Paule & Schneider, 2010). It may very well be that ensemble coaches follow similar patterns, and this would be determined by performing comparable case studies of ensemble coaches.

Our study has made a significant contribution to the literature by connecting sport teams and chamber groups through the concept of shared leadership. Because we have found this connection, researchers should be encouraged to investigate similarities in other group dynamics pertaining to teams and ensembles. Topics of group efficacy, motivational climate, cohesion, and group identity all present the opportunity for researchers to further strengthen the connection between teams and ensembles.

In this chapter, we have discussed how the three parameters of leadership emergence frequency, leadership role overlap, and leadership distribution all pointed to the relevance of shared leadership in chamber ensembles. Specifically, we found that the majority of participants indicated that leadership roles emerged in their chamber groups, and that leadership roles emerged as distinct entities from each other. We also found that the average number of leaders in our chamber groups was 2.58, indicating that 62.9% of our subjects were representative of leadership roles.

To examine whether there were roles not included in Fransen's model that emerged in chamber groups, we analyzed responses to our questions regarding extra leaders. From this analysis, two possible roles were suggested: the Organizational Leader and the Leader by Example.

We concluded that the Organizational Leader was either the fulfillment of a position usually existing as a formal leadership role in other ensembles, or an extension of the External leadership role. The Leader by Example role was seen as a set of characteristics that are recognized as part of general informal leadership in sports teams.

We then stepped away from our research questions and investigated Murnighan and Conlon's (1991) previous results which indicated that the principal violinist was considered the primary leader of string quartets. Our findings showed that, when leadership was seen as a set of different leadership roles, leadership was evenly spread throughout the group and not centralized in any particular position.

In the next section of our discussion, we explained how, although our methodology provided important information on the transferability of a shared leadership model from sport psychology to music, our results must be observed with the following three notions in mind. We explained that we must remember that roles are fluid and can change from day to day and in different settings (Belbin, 2012; King, 2006). Secondly, we explained that our study was designed to measure only the most representative member of each leadership role, there were likely other ensemble members who were representative of leadership roles but were not recorded in our results. Thirdly, we cautioned that our results must be examined while keeping in mind that the dynamics of any group are much more complicated, intricate, and subtle than any role study could attempt to describe. We then discussed elements of this complexity in chamber groups, mentioning the collaborative democracy in ensembles, as well as the leadership expressed in nonverbal cues during the playing of music.

We then conferred on the theoretical implications of our research. Specifically, we explained that our research strengthened the literature connecting sport psychology and music

performance psychology by adding group elements into this body of literature. Furthermore, we explained that our study extends the theoretical framework of shared leadership, which can be traced from our study, through sport studies of leadership (Fransen et al., 2014; Loudhead & Hardy, 2006), and into the field of industrial organizational psychology (Pearce & Conger, 2002). We explained how extending this overarching concept to music provides musicians with a wealth of interdisciplinary knowledge of a valuable approach to leadership.

We then outlined two practical implications of our research. The first practical application we mentioned was that chamber musicians can better build, manage, and maintain their chamber groups with knowledge of the existence and importance of shared leadership roles that we have found in chamber groups (Crozier, Loughhead and Monroe-Chandler, 2013; Eys, Loughhead & Hardy, 2007; Fransen, et al, 2014; Neubert, 1999). The second practical application we explored in this discussion was how ensemble coaches in educational settings could capitalize on the value of leadership in chamber groups by implementing a leadership development strategy that has its roots in the shared leadership theoretical framework (Bucci, Loughhead, & Caron, J. G. 2012; Conger, 1992; Fransen et al., 2014; Loughhead et al., 2014). To provide a specific leadership development strategy rooted in the theoretical framework of shared leadership, we followed the suggestion of Loughhead et al. (2014) and selected Conger's (1992) four leadership development elements.

We then outlined these four leadership developments of Conger's (1992): conceptual development, personal growth experiences, development of leader behaviors, and feedback from multiple sources. In our outline of Conger's leadership development elements, we also included suggestions for implementing these elements into the chamber music setting.

We then provided observations from the researcher's experience in chamber ensembles. This completed our tripartite approach to our research questions. The observations posed by the researcher suggest that the leadership dynamics of chamber ensembles are complicated, but the presence of shared leadership roles in various combinations may affect group functioning. This section serves to comment on our data and to provide suggestions for further research and practical approaches to chamber ensemble self-management.

Finally, we provided suggestions for further research. We first provided suggestions for replications of our study. We then provided suggested methods for investigating the possible leadership roles of organizational and external leaders found in our study. We then offered suggestions for measuring antecedents and consequences of shared leadership in ensembles, which could then be compared to antecedents and consequences of shared leadership in sport. We then presented suggestions for furthering the research of shared leadership in other music settings, particularly in orchestras. We then provided suggestions for empirically investigating shared leadership development in music. This area is particularly lacking in both music and sport. The last set of suggestions for future research was pertaining to other topics to explore which may further connect teams and ensembles.

Chapter 5. Conclusion

Our conclusion is divided into four sections. Firstly, we will discuss our study's ability to answer our research questions. Secondly, we will briefly review our purposes for conducting this study, and the degree to which those purposes were fulfilled through our research. Thirdly, we will underline the essence of what our study actually found (that leadership roles existed in chamber music without any preliminary intervention) and what that could mean for future studies and future practical implications of our research. Finally, we offer a few closing remarks.

5.1. Answering Our Research Questions

Our two research questions were as follows. (1) Do shared leadership roles, as defined by Fransen et al, (2014), emerge in chamber groups? (2) Are there extra leadership roles emergent in chamber groups that are not included in Fransen's definitions? If so, what is the nature of those roles? From our results, we have found that shared leadership roles in sports, as described by Fransen et al. (2014), emerge in similar form in chamber ensembles. We also found that any 'extra' leadership roles in chamber ensembles in our study can be explained as extensions of Fransen's external leader role or as general elements of shared leadership in ensemble-members.

We can confirm that leadership roles found in sport emerge in similar form in chamber ensembles because the roles of task, social, motivational, and external leader were all present to a similar degree as in Fransen's study. The results of emergence of shared leadership roles in our study were as follows: Task Leader 96%, Motivational Leader 90%, Social Leader 86%, and External Leader 82%. These results are similar to Fransen's (2104), which are as follows: Task Leader 77.5%, Motivational Leader 77.4%, Social Leader 71.3%; External Leader 52.1%. Examining the overlap of these roles in ensemble-members, we have determined that these roles

emerge as distinct entities in chamber ensembles, as leadership roles were represented more often by themselves than coupled with other leadership roles.

Our second research question, pertaining to possible extra leadership roles in chamber music, was meant to be exploratory. Because of this exploratory nature, the data received from the corresponding section in our questionnaire are meant only to provide suggestions for future research. In our study, participants suggested that there might be two leadership roles found in chamber ensembles that are not included in Fransen's (2014) model: the Organizational Leader and the Leader by Example. We postulated that the Organizational Leader could be seen as an extension of Fransen's Motivational Leader, or as an informal version of a formal role found in teams and orchestras (the general manager, marketing director, etc.). We also reasoned that the Leader by Example found in our study could be explained as a set of general elements of shared leadership because these are similar to general elements of shared leadership in sport (Glen & Horn, 1993; Rylander, Heden, Archer, & Garcia, 2013; Tropp & Landers, 1979; Yukelson, Weinberg, Richardson & Jackson, 1983).

5.2. Review of our Intentions

We investigated these research questions because of the strong growth of a literature that connects athletes and musicians. This literature comes from a plethora of sources, ranging from sport psychologists (Hamilton & Robson, 2006; Hays, 2012; Orlick, 2008), to researchers (Clark & Williamon, 2011; Nordin-Bates, 2012), to musicians themselves (Bellon, 2006; McAllister, 2012; Olevsky, 2012). However, this literature lacks investigation of the connection between teams and chamber ensembles. We supposed if a point guard is more similar to a bassoonist than originally thought, a basketball team may have surprising similarities with a wind quintet. To provide focus to our study, we chose one element of group dynamics, leadership, and investigated

possible similarities between teams and chamber ensembles. As we have found that teams and ensembles do have a commonality of shared leadership roles, this now opens the door to exploring other elements of group dynamics in both domains. Cohesion, collective-efficacy, and group identity, among other elements, would be excellent fields for further research in the connection between sports and music.

Our study has found that the literature on shared leadership is directly applicable to chamber ensembles. We believe that, using this literature and its insights, chamber musicians can perform more educated approaches to their group functioning. For example, chamber musicians could seek to build ensembles with an even distribution of leadership types (Eys, Loughhead & Hardy, 2007), and try to build chamber ensembles with high levels of leadership in general (Neubert, 1999, Crozier, Loughhead & Monroe-Chandler, 2013). Chamber groups can also have a better understanding of why a group of great players doesn't necessarily constitute a great ensemble (Bednarek, 1976; Butterworth, 1990; Day, Gronn, & Salas, 2006; Eys, Loughhead & Hardy, 2007; Pearce, Yoo & Alavi, 2003; Prescosolido, 2001; Vincer & Loughhead, 2010).

In further research on teams and ensembles will no doubt show on how each field can learn from the other, creating a model of reciprocal growth and learning. It may be found that music ensembles are even more exemplary of shared leadership roles than sports teams. In that case, sports teams may want to examine the inner workings of music ensembles to learn more positive group functioning strategies. The very opposite, however, may be found in future research. In that case, chamber ensembles might want to look at strategies teams use to improve shared leadership. Hopefully, the question of shared leadership will move forward in both sport and music.

5.3. The Crux of our Findings

In our study, we found that leadership roles in sport teams also exist in chamber ensembles. We would like to stress the importance of what our study did not do, which was invent any new leadership phenomena or characteristics. We found leadership roles to be already existing in chamber ensembles without giving any instructional leadership classes, leadership feedback, or any other leadership-building intervention. Just as no one has invented gravity, and no one has invented different subspecies of finches, we have not invented shared leadership roles in chamber ensembles. We have simply labeled already existing groups of behaviors.

We wish to make this clarification as it is important for considering next steps regarding the application and study of shared leadership in chamber groups. Future and practical applications of this study should respect the fact that chamber musicians have been exhibiting these leadership roles long before these roles were identified as such. Thus, the next steps in researching shared leadership in chamber ensembles should be focused on examining these roles in more detail before attempting to offer any premature intervention strategies. It may be very likely that chamber groups are better examples of shared leadership than sports teams (as noted above), or different antecedents and consequences of shared leadership exist in chamber groups than in sports teams. A global study is needed to determine this.

The progression of the literature, then, should be testing of the model, and examining the model in the new domain. Only then should implantation and tampering happen in the new domain. This is very much in line with the connection of individual elements of athletes and musician. The preliminary research on sport psychology for musicians has focused on exploring the existing behaviors of each professional and drawing similarities between the two, and then noting areas for possible improvement (Bellon, 2006; Hamilton & Robson, 2006; Hays, 2012;

McAllister, 2013; Nordin-Bates, 2012; Olevsky, 2012; Orlick, 2008). The presiding sentiment in this literature holds that the connection between athletes and musicians should be focused on augmenting existing positive behaviors, rather than assuming that field has superior strategies simply because of the comparative age or scope of the respective literatures.

Regarding leadership in chamber music, then, we must remember that the phenomena occurred first before being labeled as different leadership roles. Essentially, we should respect that the musicians are the masters of their profession. Our first priority should be to examine the dynamics of shared leadership in chamber groups in further detail, and then we may prescribe informed intervention strategies for altering shared leadership dynamics to improve group success.

In the meantime, however, the simple knowledge that these roles emerge in chamber groups may be helpful to chamber groups. Knowledge of these leadership roles could help ensemble members better recognize and appreciate shared leadership behaviors in their group members. Recall that in Murnighan and Conlon's (1991) study, the appreciation of the second violinist by other group members was a key contributing factor to group success. Similarly, appreciation of other types of leadership (other than the traditional formal definition) may contribute to ensemble success. Granted, many of these behaviors may be already recognized by members, understanding these behaviors to be components of important leadership roles may improve group members' perceptions of other group members. Positive behaviors would then be identified, possibly praised, and then likely repeated. Of course, this is our speculation. Further studies would have to be conducted to confirm the benefits of knowledge of leadership roles in chamber groups. However, we do see it as a possible immediate practical benefit from our research.

To conclude, we must remember to respect the domain which we study. There is clearly a high level of shared leadership in chamber ensembles. Therefore, before we can legitimately offer leadership enhancement strategies to chamber ensembles, we would do best to first examine the shared leadership which already exists in these chamber ensembles. We must first seek to understand the predictors, consequences, and detailed nature of shared leadership in chamber ensembles. From these examinations, the concept of shared leadership, along with the connection between sport and music, can grow in a truly interdisciplinary and practically informed manner, serving members from all involved fields of research, performance, and sport.

References

- Allmendinger, J., Hackman, J. R., & Lehman, E. V. (1996). Life and work in symphony orchestras. *Musical Quarterly*, 80(2), 194-219.
- Armstrong, S., & Armstrong, S. (1996). The Conductor as a Transformational Leader. *Music Educators Journal*, 82(6), 22-25.
- Atik, Y. (1994). The conductor and the orchestra: Interactive aspects of the leadership process. *Leadership & Organization Development Journal*, 15(1), 22-28.
- Avolio, B. J., Walumbwa, F. O., & Weber, T. J. (2009). Leadership: Current theories, research, and future directions. *Annual review of psychology*, 60, 421-449.
- Babcock, M., Larsen, R. (2012). *Leave No Doubt*. Montreal and Kingston: McGill-Queen's University Press.
- Banai, M., Nirenberg, J., & Menachem, M. (2000). Leadership in self-managing organizations: Orpheus and a date plantation. *Journal of Leadership & Organizational Studies*, 7(3), 3-17.
- Bass, B. M., & Avolio, B. J. (1995). *MLQ Multifactor Leadership Questionnaire for research: permission set*, Redwood City, CA: Mindgarden.
- Bednarek, F., Benson, L., & Mustafa, H. (1976). Identifying peer leadership in small work groups. *Small Group Behavior* 7(3), 307-316.
- Behling, O., & Schriesheim, C. (1976). *Organizational behavior: Theory, research, and application*. Boston, MA: Allyn and Bacon.
- Belbin, R. M. (2012). *Team roles at work*. London, England: Routledge.
- Bellon, D. (2006). *Application of sport psychology to music performance: A study based on a review of sport psychology literature and selected interviews with professional musicians*.

- D.M.A dissertation, Arizona State University, AZ. Retrieved July 11, from ProQuest Digital Dissertations database. (Publication No. AAT 3220283).
- Blank, M., & Davidson, J. (2007). An exploration of the effects of musical and social factors in piano duo collaborations. *Psychology of Music*, 25(2), 231-241.
- Blum, D. (1987). *The art of quartet playing: The Guarneri quartet in conversation with David Blum*. Ithaca, NY: Cornell University Press.
- Boerner, S., & von Streit, C. F. (2005). Transformational leadership and group climate-empirical results from symphony orchestras. *Journal of Leadership & Organizational Studies*, 12(2), 31-41.
- Boerner, S., & von Streit, C. F. (2007). Promoting orchestral performance: The interplay between musicians' mood and a conductor's leadership style. *Psychology of Music*, 35(1), 132-143.
- Boon, A., & Gilbert, W. (2010). Using the United Nation's Millennium development goals to teach citizenship in youth soccer. *Journal of Coaching Education*, 3(3), 37-55.
- Bucci, J., Bloom, G. A., Loughhead, T. M., & Caron, J. G. (2012). Ice hockey coaches' perceptions of athlete leadership. *Journal of Applied Sport Psychology*, 24(3), 243-259.
- Butterworth, T. (1990). Detroit String Quartet. In J. Richard Hackman (ed.), *Groups that work (And Those That Don't)* (pp. 207-224). San Francisco, CA: Jossey-Bass.
- Carey, R. (1995). Coming around to 360-degree feedback. *Sales and Marketing Management*, 44, 56-56.
- Carron, A. V., Hausenblas, H. A., & Eys, M. A. (2005). *Group dynamics in sport*. Morgantown, WV: Fitness Information Technology.

- Carson, J. B., Tesluk, P. E., & Marrone, J. A. (2007). Shared leadership in teams: An investigation of antecedent conditions and performance. *Academy of management Journal*, 50(5), 1217-1234.
- Chelladurai, P. (1990). Leadership in sports: A review. *International journal of sport psychology*, 21(4), 328-354.
- Chelladurai, P., & Saleh, S. (1980). Dimensions of leader behavior in sports: Development of a leadership scale. *Journal of sport Psychology*, 2(1), 34-45.
- Clark, T., & Williamon, A. (2011). Evaluation of a mental skills training program for musicians. *Journal of Applied Sport Psychology*, 23(3), 342-359.
- Collins, K., Gould, D., Lauer, L., & Chung, Y. (2009). Coaching life skills through football: Philosophical beliefs of outstanding high school football coaches. *International Journal of Coaching Science*, 3(1), 1-26.
- Conger, J. A. (1992). Learning to lead. *The art of transforming managers into leaders*. San Francisco, CA: Jossey Bass.
- Cotterill, S. (2012). *Team psychology in sports: Theory and practice*. London, England: Routledge.
- Couch, S. R. (1989). The orchestra as factory: Interrelationships of occupational change, social structure and musical style. In F. W. Foster, & J. R. Blau (Eds.), *Art and society: Readings in the sociology of the arts* (293-306). New York, NY: State University of New York Press.
- Crozier, A. J., Loughhead, T. M., & Munroe-Chandler, K. J. (2013). Examining the benefits of athlete leaders in sport. *Journal of Sport Behavior*, 36(4), 346-364.

- Csikszentmihalyi, M. (2008). *Flow: The psychology of optimal experience* (Vol. 41). New York: Harper Perennial.
- D'Ausilio, A., Badino, L., Li, Y., Tokay, S., Craighero, L., Canto, R., & Fadiga, L. (2012). Leadership in orchestra emerges from the causal relationships of movement kinematics. *Plos one*, 7(5).
- Davidson, J. W., & Good, J. M. M. (2002). Social and musical coordination between members of a string quartet: An exploratory study. *Psychology of Music*, 30(2), 186–201.
- Davidson, J. W., & King, E. C. (2004). Strategies for ensemble practice. In A. Williamon (Ed.), *Musical excellence: Strategies and techniques to enhance performance* (pp. 105–122). Oxford: Oxford University Press.
- Day, D. V., Gronn, P., & Salas, E. (2004). Leadership capacity in teams. *The Leadership Quarterly*, 15(6), 857-880.
- Day, D. V., Gronn, P., & Salas, E. (2006). Leadership in team-based organizations: On the threshold of a new era. *The Leadership Quarterly*, 17(3), 211-216.
- De Raad, B. (2000). *The Big Five Personality Factors: The psycholexical approach to personality*. Boston, MA: Hogrefe & Huber Publishers.
- Dick, W., Carey, L., & Carey, J. O. (2005). *The systematic design of instruction*. New York, NY: Pearson.
- Dineen, Murray. (2011). Gestural Economies in Conducting. In Anthony Gritten and Elaine King, eds. *New Perspectives on Music and Gesture*. Surrey: Ashgate, 131-58.
- Drucker, P. F. (1988). The coming of the new organization. *Harvard Business Review*, 45.
- Dupuis, M., Bloom, G. A., & Loughhead, T. M. (2006). Team Captains' Perceptions of Athlete Leadership. *Journal of Sport Behavior*, 29(1), 60-78.

- Ende, J. (1983). Feedback in Clinical Education. *American Medical Association*, 250, 777-781.
- Eys, M. A., Loughhead, T. M., & Hardy, J. (2007). Athlete leadership dispersion and satisfaction in interactive sport teams. *Psychology of Sport and Exercise*, 8(3), 281-296.
- Follett, M. P. (1924). *Creative experience*. New York: Longmans Green.
- Ford, L., & Davidson, J. W. (2003). An investigation of members' roles in wind quintets. *Psychology of Music*, 31(1), 53-74.
- Fransen, K., Vanbeselaere, N., De Cuyper, B., Vande Broek, G., & Boen, F. (2014). The myth of the team captain as principal leader: extending the athlete leadership classification within sport teams. *Journal of sports sciences*, 25(2), 1-9.
- Gibb, C. A. (1954). Leadership. In G. Lindzey (Ed.), *Handbook of Social Psychology*, 2, 877-917. Reading, MA: Addison-Wesley.
- Gilboa, A., & Tal-Shmotkin, M. (2012). String quartets as self-managed teams: An interdisciplinary perspective. *Psychology of Music*, 40(1), 19-41.
- Ginsborg, J., Chaffin, R., & Nicholson, G. (2006). Shared performance cues in singing and conducting: A content analysis of talk during practice. *Psychology of Music*, 34(2), 167-194.
- Glenn, S. D., & Horn, T. S. (1993). Psychological and personal predictors of leadership behavior in female soccer athletes. *Journal of Applied Sport Psychology*, 5(1), 17-34.
- Glowinski, D., Badino, L., Ausilio, A., Camurri, A., & Fadiga, L. (2012). Analysis of leadership in a string quartet. In *Third International Workshop on Social Behaviour in Music at ACM ICMi 2012*.

- Glowinski, D., Gnecco, G., Piana, S., & Camurri, A. (2013). Expressive non-verbal interaction in a string quartet. In *Affective Computing and Intelligent Interaction (ACII), 2013 Humaine Association Conference on* (pp. 233-238). IEEE.
- Goodman, E. (2002). Ensemble performance. In J. Rink (Ed.), *Musical Performance: A Guide to Understanding* (pp. 153–167). Cambridge: Cambridge University Press.
- Gould, D., & Carson, S. (2008). Life skills development through sport: Current status and future directions. *International Review of Sport and Exercise Psychology*, 1(1), 58-78.
- Gould, D., Collins, K., Lauer, L., & Chung, Y. (2007). Coaching life skills through football: A study of award winning high school coaches. *Journal of Applied Sport Psychology*, 19(1), 16-37.
- Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The leadership quarterly*, 6(2), 219-247.
- Grandzol, C., Perlis, S., & Draina, L. (2010). Leadership development of team captains in collegiate varsity athletics. *Journal of College Student Development*, 51(4), 403-418.
- Grant, Ken, and Audrey Gilmore, David Carson, Richard Laney, and Bill Pickett. 2001. “Experiential” research methodology: an integrated academic-practitioner “team” approach. *Qualitative Market Research: An International Journal* 4, no. 2: 66-74.
- Green, B., & Gallwey, W. T. (1986). *The inner game of music*. Garden City, NY: Doubleday.
- Hackman, J. R. (2004). Leading teams. *Team Performance Management: An International Journal*, 10(3/4), 84-88.

- Hackman, J. R. (2005). Rethinking team leadership or team leaders are not music directors. In D. M. Messick & R. M. Kramer (Ed.), *The psychology of leadership: New perspectives and research* (pp. 115-142). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Hallmark, R. (2000). The star conductor and musical virtuosity. In Peyser, J. (Ed.) *The Orchestra: Origins and Transformations*, 545-75.
- Hamilton, L. H., & Robson, B. (2006). Performing arts consultation: Developing expertise in this domain. *Professional Psychology: Research and Practice*, 37(3), 254.
- Hays, K. F. (2000). Breaking out: Doing sport psychology with performing artists. In M. B. Anderson (Ed.), *Doing sport psychology* (pp. 261-274). Champaign, IL: Mark Anderson.
- Hays, K. F. (2002). The enhancement of performance excellence among performing artists. *Journal of Applied Sport Psychology*, 14(4), 299-312.
- Hays, K. F. (2012). Sport and performance psychology: Commonalities and differences. In S. M. Murphy (Ed.) *Oxford handbook of sport and performance psychology* (pp. 24-45). NY: Oxford University Press.
- Holmes, R. M., McNeil, M., & Adorna, P. (2010). Student athletes' perceptions of formal and informal team leaders. *Journal of Sport Behavior*, 33(4), 442-465.
- Holt, N. L., Tink, L. N., Mandigo, J. L., & Fox, K. R. (2008). Do youth learn life skills through their involvement in high school sport? A case study. *Canadian Journal of Education*, 31, 281-304.
- Hopton, C., Phelan, J., & Barling, J. (2007). Transformational leadership in sport. *Group dynamics in exercise and sport psychology: Contemporary themes*, 45-60.
- Katz, D., & Kahn, R. L. (1978). *The Social Psychology of Organizations* (2nd ed.). New York: Wiley.

- Kawase, S. (2014). Assignment of leadership role changes performers' gaze during piano duo performances. *Ecological Psychology*, 26(3).
- King, E. C. (2006). The roles of student musicians in quartet rehearsals. *Psychology of Music*, 34(2), 262-282.
- Jackson, S. A., & Csikszentmihalyi, M. (1999). *Flow in sports*. Human Kinetics.
- King, E., & Ginsborg, J. (2011). Gestures and glances: interactions in ensemble rehearsal. In A. Gritten & E. King (Ed.), *New Perspectives of Music and Gesture*. Surrey (pp. 177-202). Farnham, England: Ashgate.
- Kerr, S., & Jermier, J. M. (1978). Substitutes for leadership: Their meaning and measurement. *Organizational Behavior and Human Performance*, 22(3), 375-403.
- Khodyakov, D. M. (2007). The complexity of trust-control relationships in creative organizations: Insights from a qualitative analysis of a conductorless orchestra. *Social Forces*, 86(1), 1-22.
- Kimiecik, J. C., & Jackson, S. A. (2002). Optimal experience in sport: A flow perspective. In T. Horm, (Ed). *Advances in Sport Psychology* (2nd ed.) (pp. 501-527). Champaign, IL: Human Kinetics.
- Koivunen, N. (2003). *Leadership in Symphony Orchestras; Discursive and Aesthetic Practices*. Finland: Tampere University Press.
- Lebrecht, N. (1991). *The Maestro Myth: Great Conductors in Pursuit of Power*. London: Simon & Schuster.
- Lepsinger, R., & Lucia, A. D. (2009). *The art and science of 360 degree feedback*. John Wiley & Sons.

- Lim, M. C. (2014). In pursuit of harmony: The social and organisational factors in a professional vocal ensemble. *Psychology of Music*, 42(3), 307-324.
- Loughead, T. M., & Hardy, J. (2005). An examination of coach and peer leader behaviors in sport. *Psychology of Sport and Exercise*, 6(3), 303-312.
- Loughead, T., Hardy, J., & Eys, M. (2006). The nature of athlete leadership. *Journal of Sport Behavior*, 29(2), 142.
- Loughead, T. M., Munroe-Chandler, K. J., Hoffmann, M. D., & Duguay, A. M. (2014). Athlete Leadership in Sport. In M. Beuchamp (Ed.), *Group Dynamics in Exercise and Sport Psychology* (pp. 110 – 127). New York, NY: Routledge.
- Marotto, M., Roos, J., & Victor, B. (2007). Collective virtuosity in organizations: A study of peak performance in an orchestra. *Journal of Management Studies*, 44(3), 388-413.
- Martin, A. J. (2008). Motivation and engagement in music and sport: Testing a multidimensional framework in diverse performance settings. *Journal of personality*, 76(1), 135-170.
- McAllister, L. S. (2012). *The Balanced Musician: Integrating Mind and Body for Peak Performance*. Lanham, MD: Scarecrow Press.
- Moran, M. M., & Weiss, M. R. (2006). Peer leadership in sport: Links with friendship, peer acceptance, psychological characteristics, and athletic ability. *Journal of Applied Sport Psychology*, 18(2), 97- 113.
- Mosher, M. (1979). The team captain. *Volleyball Technical Journal*, 4(3), 7-8.
- Murnighan, J. K., & Conlon, D. E. (1991). The dynamics of intense work groups: A study of British string quartets. *Administrative Science Quarterly*, 36(2), 165-186.
- Nierenberg, R. (2009). *Maestro: A surprising story about leading by listening*. New York, NY: Penguin.

- Neubert, M. J. (1999). Too much of a good thing or the more the merrier? Exploring the dispersion and gender composition of informal leadership in manufacturing teams. *Small Group Research*, 30(5), 635-646.
- Nordin-Bates, S. M. (2012). Performance psychology in the performing arts. In S. Murphy (Ed.), *The Oxford Handbook of Sport and Performance Psychology*, 81-114.
- Northouse, P. G. (2013). *Leadership: Theory and practice*. Thousand Oaks, CA: Sage Publications.
- Olevsky, D. (2012). *The Study of success in music: Applying methods developed by sports psychology towards achieving peak performance*. Retrieved from ProQuest. (3545078).
- Orlick, T. (2008). *In Pursuit of Excellence: 4th Edition*. Champaign, IL: Human Kinetics.
- Pearce, C. L., & Conger, J. A. (2002). *Shared leadership: Reframing the hows and whys of leadership*. Thousand Oaks, CA: Sage Publications.
- Pearce, C. L., & Sims Jr, H. P. (2002). Vertical versus shared leadership as predictors of the effectiveness of change management teams: An examination of aversive, directive, transactional, transformational, and empowering leader behaviors. *Group dynamics: Theory, Research, and Practice*, 6(2), 172.
- Pearce, C. L., Yoo, Y., & Alavi, M. (2003). Leadership, Social Work, and Virtual Teams: The relative influence of vertical versus shared leadership in the non-profit sector. In Riggio, R., & Orr, S. S. (Eds.), *Improving Leadership in Nonprofit Organizations* (180-204). San Francisco, CA: Jossey Bass Wiley.
- Pescosolido, A. T. (2001). Informal leaders and the development of group efficacy. *Small group research*, 32(1), 74-93.

- Pichanick, J. S., & Rohrer, L. H. (2002). Rewards and sacrifices in elite and non-elite organizations: Participation in valued activities and job satisfaction in two symphony orchestras. *Work values and behavior in an era of transformation*, 26(1), 347-353.
- Poulson, C. F., & Abraham, S. C. (1996). The Portland String Quartet. *Journal of Management Inquiry*, 5(3), 197-206.
- Price, M. S., & Weiss, M. R. (2011). Peer leadership in sport: Relationships among personal characteristics, leader behaviors, and team outcomes. *Journal of Applied Sport Psychology*, 23(1), 49-64.
- Rehm, R. (1999). *People in charge: Creating self managing workplaces*. United Kingdom: Hawthorn Press.
- Rieke, M., Hammermeister, J., & Chase, M. (2008). Servant leadership in sport: A new paradigm for effective coach behavior. *International Journal of Sports Science and Coaching*, 3(2), 227-239.
- Riemer, H. A., & Chelladurai, P. (1998). Development of the athlete satisfaction questionnaire (ASQ). *Journal of Sport and Exercise Psychology*, 20, 127-156.
- Ristad, E. (1982). *A soprano on her head: Right-side-up reflections on life and other performances*. Moab, UT: Real People Pr.
- Rylander, P., Heden, A., Archer, T., & Garcia, D. (2013). Will the peer leader please stand up? The personality of the peer leader in elite and non-elite sport teams. *International Journal of Research Studies in Psychology*, 3(1).
- Seddon, F., & Biasutti, M. (2009). A comparison of modes of communication between members of a string quartet and a jazz sextet. *Psychology of Music*, 37(4), 395-415.
- Service, T. (2012). *Music as Alchemy*. London: Faber & Faber.

- Shih, T. H., & Fan, X. T. (2008). Comparing response rates from web and mail surveys: A meta-analysis. *Field Methods*, 20(3), 249–271.
- Sosik, J. J., & Jung, D. D. (2011). *Full range leadership development: Pathways for people, profit and planet*. New York, NY: Taylor & Francis.
- Stogdill, R.M. (1974). *Handbook of leadership: A survey of theory and research*. New York: The Free Press.
- Timmers, R., Endo, S., Bradbury, A., & Wing, A. M. (2014). Synchronization and leadership in string quartet performance: a case study of auditory and visual cues. *Frontiers in Psychology*, 5, 645.
- Traub, J. (1996). Passing the baton: What CEOs could learn from the Orpheus Chamber Orchestra. *New Yorker*, 70(25), 100-105.
- Tropp, K. J., & Landers, D. M. (1979). Team interaction and the emergence of leadership and interpersonal attraction in field hockey. *Journal of Sport Psychology*, 1(3), 228-240.
- Vidic, Z., & Burton, D. (2011). Developing effective leaders: Motivational correlates of leadership styles. *Journal of applied sport psychology*, 23(3), 277-291.
- Vincer, D., & Loughhead, T. M. (2010). The relationship among athlete leadership behaviors and cohesion in team sports. *Sport Psychologist*, 24(4), 448.
- Vredenburg, D., & He, I. Y. (2003). Leadership lessons from a conductorless orchestra. *Business Horizons*, 46(5), 19-24.
- Warech, M. A., Smither, J. W., Reilly, R. R., Millsap, R. E., & Reilly, S. P. (1999). Self-monitoring and 360-degree ratings. *The Leadership Quarterly*, 9(4), 449-473.
- Williamon, A., and Davidson, J. (2002). Exploring co-performer communication. *Musicae Scientiae*, 6(1), 53-72.

Wis, R. M. (2002). The conductor as servant-leader. *Music Educators Journal*, 89(2), 17-24.

Wis, R. M. (2007). *The conductor as leader: principles of leadership applied to life on the podium*.
Chicago, IL: Gia Publications.

Young, V. M., & Colman, A. M. (1979). Some psychological processes in string quartets. *Psychology of Music*, 7(1), 12-18.

Yukelson, D., Weinberg, R., Richardson, P., & Jackson, A. (1983). Interpersonal attraction and leadership within collegiate sport teams. *Journal of Sport Behavior*.

Zaccaro, S. J., Rittman, A. L., & Marks, M. A. (2002). Team leadership. *The Leadership Quarterly*, 12(4), 451-483.

Appendix A:**Ford and Davidson (2002) Survey Reproduced**

For reasons of copyright the survey is not herein reproduced.

Appendix B:

Our Questionnaire Part 1: Demographic

1. What Instrument do you play?
2. What are the instruments of other members of your group in order of their seating from stage right to left? Include yourself in the seating arrangement. Members of your ensemble will be referred to by the corresponding “player 1, player 2, etc.” for the remainder of the survey.
 - a. Player 1
 - b. Player 2
 - c. Player 3
 - d. Player 4
 - e. Player 5
 - f. Player 6
 - g. Player 7
 - h. Player 8
3. When was your group formed?
 - a. 0-6 months ago
 - b. 6 – 12 months ago
 - c. 1 – 5 years ago
 - d. 11 – 20 years ago
 - e. More than 30 years ago
4. With whom were you friends/colleagues prior to forming/joining your ensemble?
 - a. Player 1
 - b. Player 2
 - c. Player 3
 - d. Player 4
 - e. Player 5
 - f. Player 6
 - g. Player 7
 - h. Player 8
5. Are there any group members who are recently new to the ensemble?
 - a. Player 1
 - b. Player 2
 - c. Player 3
 - d. Player 4
 - e. Player 5
 - f. Player 6
 - g. Player 7
 - h. Player 8

6. If yes, how recent was this change? Please check all that apply.

	> 1 month ago	1 – 3 months ago	3 – 6 months ago	Over 6 months ago
Player 1				
Player 2				
Player 3				
Player 4				
Player 5				
Player 6				
Player 7				
Player 8				

7. Do you consider your group to be...

- a. Part time
- b. Full time

8. Do you consider your chamber group to be

- a. Fully amateur
- b. Semi-professional
- c. Professional

9. In which age groups do your group members fall? Please choose the appropriate response for each item.

	Under 20	20 – 29	30 – 39	40 – 49	50 – 59	60 and over
Player 1						
Player 2						
Player 3						
Player 4						
Player 5						
Player 6						
Player 7						
Player 8						

10. Which members of your group are male and which are female? Please choose the appropriate response for each item.

	Male	Female
Player 1		
Player 2		
Player 3		
Player 4		
Player 5		
Player 6		
Player 7		
Player 8		

11. Approximately how many performances does your group give per year?
 - a. None
 - b. 1 – 5
 - c. 6 – 10
 - d. 11 – 20
 - e. 21 – 30
 - f. More than 30
12. On average, how often do you rehearse over the course of a year?
 - a. More than once a week
 - b. Once a week
 - c. Once every two weeks
 - d. Once a month
 - e. Less than once a month
 - f. Only before impending concerts
13. For approximately how many hours do you typically rehearse when you meet?
 - a. Under 30 minutes
 - b. 30 – 60 minutes
 - c. 1 – 2 hours
 - d. 2 – 3 hours
 - e. Over 3 hours
14. Do you meet socially with other members of your group?
 - a. Yes
 - b. No
15. Does your group usually set aside time to discuss the performance?
 - a. Yes
 - b. No
16. If yes, is this a formal discussion?
 - a. Yes
 - b. No
17. Ideally, how long do you envisage your group staying together?
 - a. Always
 - b. For a long time
 - c. For a short while
 - d. Not long at all
 - e. Don't know
18. Of all your commitments, how much of a priority is your group in your life at the time (1 = not at all, 5 = very much so)?
 - a. 1
 - b. 2
 - c. 3
 - d. 4
 - e. 5

Appendix C:

Our Questionnaire Part 2: Emergence of Shared Leadership Roles

Please read the following descriptions of four leadership types.

Task leader

A task leader is in charge in rehearsal and performance; this person helps the team to focus on our goals and helps in musical decision-making. Furthermore, the task leader gives his/her group members tactical advice during rehearsal and adjusts them if necessary

Motivational leader

The motivational leader is the biggest motivator in rehearsal and performance; this person can encourage his/her group members to go to any extreme; this leader also puts fresh heart into players who are discouraged. In short, this leader steers all the emotions in rehearsal and performance in the right direction in order to perform optimally as a team.

Social Leader

The social leader has a leading role besides rehearsals and performances; this person promotes good relations within the group and cares for a good group atmosphere, e.g. back stage, in the cafeteria or on social team activities. Furthermore, this leader helps to deal with conflicts between group members besides the music. He/she is a good listener and is trusted by his/her group members.

External Leader

The external leader is the link between our group and the people outside; this leader is the representative of our team to the club management. If communication is needed with media or sponsors, this person will take the lead. This leader will also communicate the guidelines of the club management to the team regarding the club activities for sponsoring.

Instructions

- Please indicate which player in your group corresponds best with the description of each of the four leadership roles by writing their name.
- Only one player can be ascribed to each of the roles, but one and the same player may occupy several of the leadership roles.
- If you believe that a leadership role is not indicated by any member of your group, you can indicate this by writing NR for “not represented.”

Task Leader:

☐player 1 ☐player 2 ☐player 3 ☐player 4 ☐player 5 ☐player 6 ☐player 7 ☐player 8

Motivational Leader:

☐player 1 ☐player 2 ☐player 3 ☐player 4 ☐player 5 ☐player 6 ☐player 7 ☐player 8

Social leader:

☐player 1 ☐player 2 ☐player 3 ☐player 4 ☐player 5 ☐player 6 ☐player 7 ☐player 8

External leader:

☐player 1 ☐player 2 ☐player 3 ☐player 4 ☐player 5 ☐player 6 ☐player 7 ☐player 8

Is there a member of your ensemble that you would consider to be a leader, but does not fit any of the four definitions?

☐Yes

☐No

If yes, please describe their leadership style in five key words or less.

Appendix D:

Introductory Letter to Respondents

Dear member of the Canadian Federation of Musicians,

Title of Study: Shared Leadership in Chamber Music Groups: A Provisional Theoretical Framework and Methodology

Researcher: Mark Kleyn
Faculty of Graduate Studies
University of Ottawa

Thesis Supervisor: Dr. Phillip Dineen
Professor
University of Ottawa

I am writing to you as a Master of Arts in Music student at the University of Ottawa that is presently enrolled in the musicology program under the supervision of Professor Phillip Dineen. This I am currently working on my thesis project which is investigating the emergence of shared leadership roles found in sport psychology in chamber music groups. To explore this topic, I will be asking musicians in the CFM to fill out a two-part survey related to general information about your chamber group, and the representation of various leadership roles by you or other members of your current or most recent ensemble. I am writing to ask if you would participate in this study by taking the survey. This project is being conducted independently from the CFM. Here are the details.

Objective: The purpose of this study is to determine if shared leadership roles found in sports teams also emerge in chamber music groups.

What the participant will be asked to do: This project will be carried out using a single two-part questionnaire hosted by LimeSurvey. The first section of the questionnaire will be on general information about your current or most recent chamber group. The second section of the questionnaire is on the topic of shared leadership roles. The first section of the questionnaire asks the participant to indicate the most applicable answer for each question. The second section of the questionnaire asks the participant to associate which ensemble member, if any, best represents each of four leadership roles, to indicate the “most important leader” and if they consider any member of their ensemble to be a leader who does not fit any of the four definitions. There are no right or wrong answers to any of the questions, and all questions have the option of “no response.” I am simply asking the participant to indicate their perceptions. Completing all questionnaires will take approximately 30 minutes. As the primary researcher and the student researcher do not possess adequate skills to accommodate multiple languages without bringing in an outside researcher, this study will be conducted in English.

Who will carry out the questionnaire: The questionnaire will be hosted online by LimeSurvey.

Where will the questionnaire be carried out: The questionnaire will be completed in a location and time that is convenient to the participant, as the survey is hosted on an online website. The online survey will be open for one week, starting today, ____.

Compensation: Participants agreeing to take the questionnaire will be entered into a raffle for a \$50, and two \$25 gift certificates to The Leading Note music store. Winners of the raffle will be contacted within two weeks from today's date. If participants choose to withdraw from the survey, they will still be eligible for the compensation raffle.

Anonymity and Confidentiality: You should participate in this project only if you want to. After indicating interest in this project, you may decide not to answer every question or may stop filling out the questionnaire at any time. All information provided by you will remain strictly anonymous and confidential. Only authorized members of this project will have access to the data provided. When the results are reported, only group averages will be presented. No information about individuals will ever be made public.

This project has been approved by the Research Ethics Board of the University of Ottawa. For any information regarding ethical issues in research, please contact the Office of Research Ethics and Integrity, University of Ottawa, Room 154, Tabaret Hall, 550 Cumberland Street, Ottawa K1N 6N5. (Telephone: 613-562-5387; Email: ethics@uottawa.ca)

My request to you: If you are interested, please follow the link below to the survey. The first page of the survey is a consent form. If you are comfortable with the conditions therein, you can provide your consent by clicking "next" and continuing on to the survey.

I hope you find this project interesting and I would like to thank you in advance for considering this request for participation.

Sincerely,

Mark Kleyn

Appendix E:

Consent Form for Respondents

Title of the study: Shared Leadership Roles in Chamber Music Groups: A Provisional Theoretical Framework and Methodology

Student	Mark Kleyn	Researcher:	Dr. Phillip Dineen
Researcher:	Faculty of Graduate Studies University of Ottawa		Professor University of Ottawa

Invitation to Participate: I am invited to participate in the abovementioned research study conducted as a part of Mark Kleyn's Master's thesis, under the supervision of Professor Phillip Dineen. This project is being conducted independently from the CFM.

Purpose of the Study: The purpose of this study is to determine if shared leadership roles found in sports teams also emerge in chamber music groups.

Participation: My participation in this study will consist of completing a two-part questionnaire on the topics of general information about my chamber group, and the representation of various leadership roles by myself or members of my ensemble. After indicating interest in this project, I may decide not to answer every question or may stop filling out the questionnaire at any time. All information that I provide will remain strictly anonymous and confidential. Only authorized members of this project will have access to the data I have provided. When the results are reported, only group averages will be presented. My individual information will never be made public.

Risks: My participation in this study will entail that (example: I volunteer very personal information, and this may cause me to feel (describe potential risks or inconveniences, whether emotional, psychological, physical, social, economic or other). I have received assurance from the researcher that every effort will be made to minimize these risks (describe what measures are taken to minimize such risks).

Benefits: My participation in this study will strengthen the connection between sport psychology and musicians. The resulting research from this study will help chamber musicians to more effectively build, maintain, and manage their chamber groups with an understanding of leadership roles and their functions in a group. The resulting research from this study will also aid chamber ensemble coaches in academic settings. These ensemble coaches can effectively mentor leadership roles to improve the internal social structure of student chamber groups.

Anonymity and Confidentiality: I have received assurance from the researcher that the information I will share will remain strictly confidential. I understand that the contents will be used only for studying the emergence of shared leadership roles in chamber groups and that my anonymity will be protected by encrypted passwords for all online surveys, and resulting data will be kept in a locked filing cabinet in the office of the primary researcher. In order to

minimize the risk of security breaches and to help ensure your confidentiality we recommend that you use standard safety measures such as signing out of your account, closing your browser and locking your screen or device when you are no longer using them / when you have completed the study.

Anonymity will be protected in the following manner. The only personal information requested for you will be your email address to participate in the raffle. After the raffle is completed, this collection of emails will be deleted. Responses to the survey are completely anonymous and collected separately from your email.

Conservation of data: Data from the survey will be transferred to an offline file within a week of the survey's completion. After this process is complete, the online data will be eliminated, leaving only the data on the offline spreadsheet. The data on the offline spreadsheet will be kept on a thumb drive, which will be kept in a secured manner in a locked filing cabinet in the office of the primary researcher. Only the student researcher and the primary researcher will have access to this data. This data will be conserved for five years after the completion of the study.

Compensation: There will be compensation for participation in the survey. One \$50 gift card and two \$25 gift cards will be available by raffle for participants. If I choose to withdraw from the study, I will still receive this compensation.

Voluntary Participation: I am under no obligation to participate and if I choose to participate, I can withdraw from the study at any time and/or refuse to answer any questions, without suffering any negative consequences. Information provided in the study will be anonymous, and participation/nonparticipation will also be anonymous. If I choose to withdraw, all data gathered until the time of withdrawal will be electronically deleted from both Limesurvey and from any electronic files kept by the researcher.

Acceptance: By checking "I agree with these terms and conditions," I indicate that I agree to participate in the above research study conducted by Mark Kleyn of the Faculty of Arts, Department of Music, at the University of Ottawa, which research is under the supervision of Mark Kleyn. By checking "I do not agree with these terms and conditions," I indicate that I do not agree to participate, and will not be directed to the rest of the survey.

If I have any questions about the study, I may contact the researcher or his supervisor.

If I have any questions regarding the ethical conduct of this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5
Tel.: (613) 562-5387
Email: ethics@uottawa.ca

- ☐ **I agree with these terms and conditions**
- ☐ **I do not agree with these terms and conditions**

Appendix F:

Reminder Letter to Participants

Dear member of the Canadian Federation of Musicians,

I am emailing you to remind you that the survey you were contacted about a few days ago will be closing tomorrow at midnight. Here is the information about the project again.

Title of Study: Shared Leadership in Chamber Music Groups: A Provisional Theoretical Framework and Methodology

Researcher: Mark Kleyn Faculty of Graduate Studies University of Ottawa	Thesis Supervisor: Dr. Phillip Dineen Professor University of Ottawa
--	---

I am writing to you as a Master of Arts in Music student at the University of Ottawa that is presently enrolled in the musicology program under the supervision of Professor Phillip Dineen. I am currently working on my thesis project which is investigating the emergence of shared leadership roles found in sport psychology in chamber music groups. To explore this topic, I will be asking musicians in the CFM to fill out a two-part survey related to general information about your chamber group, and the representation of various leadership roles by you or other members of your ensemble. I am writing to ask if you would participate in this study by taking the survey. Here are the details.

Objective: The purpose of this study is to determine if shared leadership roles found in sports teams also emerge in chamber music groups.

What the participant will be asked to do: This project will be carried out using a single two-part questionnaire hosted by LimeSurvey. The first section of the questionnaire will be on general information about your current or most recent chamber group. The second section of the questionnaire is on the topic of shared leadership roles. The first section of the questionnaire asks the participant to indicate the most applicable answer for each question. The second section of the questionnaire asks the participant to associate which ensemble member, if any, best represents each of four leadership roles, to indicate the “most important leader” and if they consider any member of their ensemble to be a leader who does not fit any of the four definitions. There are no right or wrong answers to any of the questions, and all questions have the option of “no response.” I am simply asking the participant to indicate their perceptions. Completing all questionnaires will take approximately 30 minutes.

Who will carry out the questionnaire: The questionnaire will be hosted online by LimeSurvey.

Where will the questionnaire be carried out: The questionnaire will be completed in a location and time that is convenient to the participant, as the survey is hosted on an online website. The online survey will be open for one week, starting today, ____.

Compensation: Participants agreeing to take the questionnaire will be entered into a raffle for a \$50, and two \$25 gift certificates to The Leading Note music store. Winners of the raffle will be contacted within two weeks from today's date.

Anonymity and Confidentiality: You should participate in this project only if you want to. After indicating interest in this project, you may decide not to answer every question or may stop filling out the questionnaire at any time. All information provided by you will remain strictly anonymous and confidential. Only authorized members of this project will have access to the data provided. When the results are reported, only group averages will be presented. No information about individuals will ever be made public.

This project has been approved by the Research Ethics Board of the University of Ottawa. For any information regarding ethical issues in research, please contact the Office of Research Ethics and Integrity, University of Ottawa, Room 154, Tabaret Hall, 550 Cumberland Street, Ottawa K1N 6N5. (Telephone: 613-562-5387; Email: ethics@uottawa.ca)

My request to you: If you are interested, please follow the link below to the survey. The first page of the survey is a consent form. If you are comfortable with the conditions therein, you can provide your consent by clicking "next" and continuing on to the survey.

I hope you find this project interesting and I would like to thank you in advance for considering this request for participation.

Sincerely,

Mark Kleyn

Appendix G:

Raffle Email

Dear member of the Canadian Federation of Musicians,

I am emailing to inform you that you have won the \$___ certificate to The Leading Note because of your entry in a raffle for participating in the study mentioned below. The gift card will be on hold for you in an envelope with your name on it at the Leading Note. If you inform the front cashier that you have a gift card waiting from Mark Kleyn, they should give it to you. If you have any questions or encounter any problems, you may contact me by email. Your email will be deleted within one week to ensure your anonymity. Thank you again for your participation in my survey.

Title of Study: Shared Leadership in Chamber Music Groups: A Provisional Theoretical Framework and Methodology

Researcher: Mark Kleyn
Faculty of Graduate Studies
University of Ottawa

Thesis Supervisor: Dr. Phillip Dineen
Professor
University of Ottawa

Sincerely,

Mark Kleyn

Here is the address for The Leading Note.

370 Elgin St #2,
Ottawa, ON K2P 1N1
(613) 569-7888

Appendix H:

Ethics Certificate of Approval

File Number: 03-15-19		Date (mm/dd/yyyy): 05/25/2015
Université d'Ottawa Bureau d'éthique et d'intégrité de la recherche	University of Ottawa Office of Research Ethics and Integrity	
Ethics Approval Notice		
Social Sciences and Humanities REB		
 Principal Investigator / Supervisor / Co-investigator(s) / Student(s)		
<u>First Name</u>	<u>Last Name</u>	<u>Affiliation</u>
Phillip Murray	Dineen	Arts / Music
Mark	Kleyn	Arts / Music
		<u>Role</u>
		Supervisor
		Student Researcher
 File Number: 03-15-19		
Type of Project: Master's Thesis		
Title: Shared Leadership in Chamber Music Groups: A Provisional Theoretical Framework and Methodology		
Approval Date (mm/dd/yyyy)	Expiry Date (mm/dd/yyyy)	Approval Type
05/25/2015	05/24/2016	Ia
(Ia: Approval, Ib: Approval for initial stage only)		
Special Conditions / Comments:		
N/A		

1

550, rue Cumberland, pièce 154 550 Cumberland Street, room 154
 Ottawa (Ontario) K1N 6N5 Canada Ottawa, Ontario K1N 6N5 Canada
 (613) 562-5387 • Téléc./Fax (613) 562-5338
www.recherche.uottawa.ca/deontologie/ www.research.uottawa.ca/ethics/

File Number: 03-15-19

Date (mm/dd/yyyy): 05/25/2015



Université d'Ottawa **University of Ottawa**
 Bureau d'éthique et d'intégrité de la recherche Office of Research Ethics and Integrity

This is to confirm that the University of Ottawa Research Ethics Board identified above, which operates in accordance with the Tri-Council Policy Statement (2010) and other applicable laws and regulations in Ontario, has examined and approved the ethics application for the above named research project. Ethics approval is valid for the period indicated above and subject to the conditions listed in the section entitled "Special Conditions / Comments".

During the course of the project, the protocol may not be modified without prior written approval from the REB except when necessary to remove participants from immediate endangerment or when the modification(s) pertain to only administrative or logistical components of the project (e.g., change of telephone number). Investigators must also promptly alert the REB of any changes which increase the risk to participant(s), any changes which considerably affect the conduct of the project, all unanticipated and harmful events that occur, and new information that may negatively affect the conduct of the project and safety of the participant(s). Modifications to the project, including consent and recruitment documentation, should be submitted to the Ethics Office for approval using the "Modification to research project" form available at: <http://research.uottawa.ca/ethics/submissions-and-reviews>.

Please submit an annual report to the Ethics Office four weeks before the above-referenced expiry date to request a renewal of this ethics approval. To close the file, a final report must be submitted. These documents can be found at: <http://research.uottawa.ca/ethics/submissions-and-reviews>.

If you have any questions, please do not hesitate to contact the Ethics Office at extension 5387 or by e-mail at: ethics@uOttawa.ca.

Signature:

Kim Thompson
 Protocol Officer for Ethics in Research
 For Barbara Graves, Chair of the Social Sciences and Humanities REB