The Singing Cellist:
An exploration of the relationship between the cello and the human voice

by
Kim Martin Stuart Worley
B. Music (Hons)

Queensland Conservatorium of Music
Griffith University

Submitted in partial fulfilment of the requirements for the degree of Master of Music (Research)

June 2015
Abstract

Singing and playing the cello have often been anecdotally linked, but there has been little research undertaken that examines the relationship in any depth. Through reflection upon my practice as a singer and cellist, and in examining selected repertoire, this paper explores the ways in which the use of the human voice can influence and inform string playing generally, and cello playing in particular. A series of interviews was undertaken with selected relevant musicians to gain a wider perspective on the research topic, and these support and inform the author’s reflections.

The first chapter deals with various technical elements of singing practice, with relationships and equivalences to string instrument practice noted. These elements include the breath and breathing, phonation, vowel and consonant production, vibrato, shifting and portamento, and registers.

Chapter two examines the area of language as it relates to music and ideas for its incorporation into instrumental performance are explored.

Chapter three investigates the pairing of the cello with the voice in several contexts, including in an orchestral/vocal setting, in chamber music, and with the performer singing and playing at the same time.

Finally, brief conclusions are drawn from the research undertaken and recommendations for further research are noted.
Statement of Originality

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

Kim Worley, June 2015
Acknowledgements

The birth of this paper has been a long and at times arduous one, and there are several people I would like to thank for helping this project come to fruition.

Firstly, I am indebted to my supervisor Stephen Emmerson for guiding me through the sometimes thorny process of undertaking a project such as this. As well as providing me with many useful suggestions during the writing and drafting process, his knowledge, wisdom, patience, good humour and ceaseless encouragement have been greatly appreciated.

Thanks also to the six musicians who kindly and willingly gave their time to participate in my interviews: David Dolan, Howard Penny, Paul McMahon, Robert Davidson, Anna Connolly and Simon Wallfisch. Their wisdom, expertise and experience provided me with much valuable information, and without their participation this project would not have been possible.

Over many years, a number of teachers to whom I wish to extend my gratitude have helped to shape my musical development and have lead me to a greater understanding of the arts of both singing and cello playing. Special thanks go to Howard Penny, who as my cello teacher during my time at ANAM helped me to prepare for the recitals that formed the basis of my reflections contained in this paper.

Finally, I would like to thank my wonderful wife Anna Webb who has supported me in countless ways along the journey of this project. Not only has she provided me with input from her own experience as a musician but she has also been a sounding-board for my thoughts and ideas as well as an expert proof-reader and grammar-checker of my many drafts. The practical and emotional support she has given me has seen me through the more stressful times in preparing this paper and her encouragement, patience and love have been without limit.
# Table of contents

Statement of Originality ................................................................. iii  
Acknowledgements ........................................................................ iv  
List of Figures ................................................................................. vii

**Introduction** .................................................................................. 3  

  * Literature review ........................................................................ 3  
  * Methodology – interviews .......................................................... 6

**Chapter 1 – Technical elements** ................................................... 10  

  * Breath and breathing ................................................................. 10  
  * Phonation .................................................................................. 17  
  * Vowel and consonant production .............................................. 19  
  * Vibrato ...................................................................................... 22  
  * Shifting and portamento ............................................................ 24  
  * Registration ............................................................................... 26

**Chapter 2 – Language** .................................................................. 30

**Chapter 3 – Cello with voice** ....................................................... 40

**Conclusion** .................................................................................. 49

**Reference List** .............................................................................. 51  

  * Written references ...................................................................... 51  
  * Score references ........................................................................ 56  
  * Audio references ........................................................................ 57  
  * Images used ............................................................................... 58
Appendix A: Sample interview statement ........................................ 59
Appendix B: David Dolan interview .................................................. 61
Appendix C: Howard Penny interview .............................................. 72
Appendix D: Paul McMahon interview .............................................. 89
Appendix E: Robert Davidson interview ......................................... 102
Appendix F: Anna Connolly interview ............................................. 121
Appendix G: Simon Wallfisch interview ......................................... 149
List of Figures

Figure 1.1: Bach, J.S. Sarabande, bars 1-4. In Suite no. 6 in D major for unaccompanied ‘cello, BWV 1012 ................................................................. 12

Figure 1.2: Barber, S. First movement: Allegro ma non troppo, bars 1-4. In Sonata for Violoncello and Piano, Op.6 ................................................................. 13

Figure 1.3: Schubert, F. First movement: Allegro moderato, bars 1-22. In Sonata for Piano and Arpeggione in A minor, D.821 .................................................. 16

Figure 1.4: Boccherini, L. First movement: Adagio, bars 1-4. In Sonata in A Major, G.4 ................................................................................................. 20

Figure 1.5: Boccherini, L. Second movement: Allegro, bars 1-2. In Sonata in A Major, G.4 ................................................................................................. 21

Figure 1.6: Boccherini, L. First movement: Adagio, bar 11. In Sonata in A Major, G.4 ................................................................................................. 26

Figure 1.7: Boccherini, L. First movement: Adagio, bar 17. In Sonata in A Major, G.4 ................................................................................................. 26

Figure 1.8: Boccherini, L. Second movement: Allegro, bar 22. In Sonata in A Major, G.4 ................................................................................................. 29

Figure 2.1: Vaughan Williams, R. ‘The Infinite Shining Heavens’, bars 1-13. In Songs of Travel ............................................................................................... 33

Figure 3.1: Previn, A. Vocalise for soprano, cello and piano, bars 47-65 ...... 42

Figure 3.2: Previn, A. Vocalise for soprano, cello and piano, bars 93-105 ..... 43
Figure 3.3: Previn, A. Vocalise for soprano, cello and piano, bars 1-13 ........ 43

Figure 3.4: Vasks, P. Second movement: Pianissimo, excerpt from rehearsal mark 12. In Grāmata čellam for solo violoncello ............................................................ 46

Figure 3.5: Vasks, P. Second movement: Pianissimo, excerpt from rehearsal mark 9. In Grāmata čellam for solo violoncello ............................................................ 48
Painting of a musician singing and playing the cello by the Flemish artist Dirk Hals (1591 – 1656). Wallraf-Richartz Museum, Cologne.
"When I started learning the cello, I fell in love with the instrument because it seemed like a voice - my voice"

- Mstislav Rostropovich, from an interview in The Strad, October 1997
Introduction

Like Rostropovich, the experience many musicians have of discovering and falling in love with a musical instrument is akin to finding their musical ‘voice’. Indeed, as communicators of meaning and expression through sound, musicians are compelled to ‘speak’ through their instruments. As a cellist and singer, my musical voice as expressed through my instrument and my singing voice share a close relationship, and in fact they tend to inform each other, so that what I learn and develop in one finds a musical expression with the other.

This paper will examine the question of how elements of my singing and speaking voice inform and influence my practice as a cellist in selected repertoire. This examination will first address a number of technical aspects of the use of the human voice when singing and how they relate to cello playing. It will also look at the role of language in my musical practice and the use of the cello and voice together, either in a chamber music setting or by a single performer. I will principally reflect on my own experience and practice as an instrumentalist and singer, highlighted by examples from repertoire that I performed as part of three public recitals at the Australian National Academy of Music (ANAM). These reflections will be supported by published literature and also extracts from a series of interviews I conducted with selected musicians.

Literature review

Although links between the cello and the human voice are often remarked upon anecdotally, in my survey of the extant literature on this topic I found no major books, articles or other published material wholly dedicated to this topic. A number of references are made to the similarity between the voice and the cello (and instruments in general), citing approaches to playing and interpretation in which one informs the other, however these are generally only short fragments found in the context of larger texts and in no way constitute a study of the concept or of related ideas.
The idea of instrumentalists, and string players in particular, singing through their instruments can be traced back several centuries. For example, Leopold Mozart, in his well-known and influential *Treatise on the Fundamental Principles of Violin Playing* (1756), makes several references to singing as a model for tone production and expression in string-playing, especially when discussing the use of the bow. He instructs the reader that ‘...singing is at all times the aim of every instrumentalist; because one must always approximate to nature as nearly as possible.’ (1756/1985, p.102). In the preface to *The Art of Playing on the Violin* (1751), Francesco Geminiani states that ‘The Art of playing the Violin consists in giving the Instrument a Tone that shall in a Manner rival the most perfect human Voice’ (p.1), and Tartini recommends his *Treatise on Ornamentation* (1771/1956) to ‘teachers of the singing style’ (p.76).

In *Cello Story* (Markevitch, 1984), 18th century cello virtuoso and composer Luigi Boccherini is reported to have commented that ‘French artists are unbeatable in their precision and manipulation of the bow, but they are defective in their expressiveness – their instruments do not sing’ (p.77) and elsewhere the *Gazette Musicale Generale* of Paris, reviewing a performance by Boccherini, is quoted as saying that he was ‘a marvellous cellist. He always charmed us with the incomparable sonority and extreme lyricism of his instrument.’ (p.79). More recently too, leading cellists such as Stephen Isserlis have recognised the importance of the cello/voice relationship: in 2011, Isserlis convened a series of concerts featuring the cello in partnership with singers to explore and celebrate the relationship between the two (Isserlis, 2011). He also describes, in the foreword to *Daniil Shafran: cello solo* (2009), the late virtuoso cellist Daniil Shafran as ‘one of the great Russian singers – except that his voice was a cello’ (Sairanen, 2009). Such examples show that both in past centuries and in the modern era, acclaimed cellists have been conscious of the lyricism inherent in their instrumental practice and have also been praised for their ability to sing through their instruments.

Other texts suggest specific aspects of singing and speaking that can be emulated by instrumentalists. Noted cellist and pedagogue William Pleeth, in his book simply entitled *Cello* (1982/1992), refers to singing and speaking extensively,
especially when discussing such elements as bowing, left-hand technique and the conception of tone colour and phrasing on the cello. Herbert Wohne, in his book *The Integrated Violinist* (1976), devotes an entire chapter to the idea of breath and breathing in music (and string playing in particular), and in another talks at length about the virtues of portamento, or the subtle gliding into one note from another, commenting that ‘...it is the bowed strings that come nearest to the human voice. They have a continuous flow of sound, they can make vibrato and they are capable of the gradual approach to a note we call portamento.’ (p.114). The similarity of breath use between string players and singers in preparation for a phrase is mentioned by Gerard Mantel in his book *Cello Technique* (1995), while in *Playing the Cello, 1780-1930*, Kennaway (2014) comments that Friedrich Kummer earmarks vibrato and the messa di voce, or gradual swelling and decaying of sound, as elements that can be learned from good singers in his 1839 work *Method for the Violoncello* (p.137). Harry Deacon (as cited in Helmsley, 1998) states that ‘instrumental music gets its legato and the more subtle parts of its phrasing from the singer, while the singer owes his precision and more musicianly qualities to the instrumentalist.’ (p.4) and the idea of a vocal approach to string playing aiding musicality is advocated by Samuel Applebaum in his book *The Art and Science of String Playing* (1986), where he notes that ‘a player should think vocally even when performing rapid movements, such as the final movements of the Mozart sonatas or quartets.’ (p.135). These are but a few examples of the ways in which musicians and pedagogues have endorsed the concept of singing and speaking as an inspiration and model for instrumental practice.

Such sources acknowledge the importance of the topic but mostly give little detail or in-depth discussion of the issue beyond general claims. Thus, I felt that interviews were necessary to flesh out how ideas such as breath, vibrato and portamento could be applied in practice. Also, as far as I can ascertain, none of these texts are written from the perspective of a practising singer, and it is this gap in the literature which I hope to address, at least in part, in this paper.
Methodology - interviews

To gain different perspectives on the research topic, I interviewed six musicians, each of whose skill-set and experience has a relationship to the research area in some way, and who could provide unique insights into this field of study. The interviews were by no means intended to represent a comprehensive survey of musicians in relation to the research field, but provided a snapshot of views and experiences of a targeted group of relevant artists that I could reflect upon in relation to my own practice.

I attempted to contact eight musicians in all, one of whom did not reply to my email communication and another who withdrew from the process before the actual interview took place. Rather than just interviewing cellists, I selected a range of musicians who could offer different perspectives on the topic, including singers, composers and other musicians who I perceived would provide a distinctive point of view. The musicians that did take part were:

Cellist Howard Penny,  
Singer/cellist Simon Wallfisch.  
Singers Paul McMahon and Anna Connolly,  
Composer/double-bassist Robert Davidson and  
Pianist/classical improvisation specialist David Dolan.  

I requested an interview of approximately one hour with each participant and devised a set of questions for each, that raised both the general issues that the project was exploring, and questions pertinent to the experience of the individual. However, they were designed to be semi-structured so that the conversation could evolve organically and allow for flexibility to diverge from those questions if an interesting avenue of discussion arose in the course of the discussion. The interviews took place at mutually convenient times and locations, or in the case of Simon Wallfisch, by Skype where distance prevented a face-to-face meeting. Ethics approval was required and granted for these
interviews by Griffith University and they were conducted according to the protocol QCM/25/13/HREC, which was approved by the same.

Prior to each interview, I gave a written statement to the participant (see Appendix A) outlining some of my thoughts on the relationship between the two instruments (except for Howard Penny who, as my cello teacher at ANAM, was already aware of the details of my project). This was done to inform the participants of the focus of my study and also to provide a launching pad to start the discussion. As each interview passed and my reflections and learning about the relationship between the two practices developed, some alterations were made to this statement, meaning that most interviewees received slightly different documents. For the most part however, these were not dramatic changes but minor alterations or clarifications to the existing text and did not significantly alter the central questions I was exploring with the participants. The interviews were recorded on my laptop as well as a digital recording device as a back-up and the resulting files were transcribed by an online transcription company.

The order of the interviews was in part determined by the availability of the interviewees. The first interview I conducted was with visiting international artist David Dolan. It took place in the Council Chamber of the South Melbourne Town Hall on the 4th of May, 2014. We spoke for approximately 35 minutes, which was to be by far the shortest of the six interviews. Dolan’s main emphasis was on the ‘prosodic’ level of verbal communication, that is, the intonation or ‘music’ of speech, which conveys the true meaning behind the words that are spoken, and how this relates to communicating through a musical instrument. Among other concepts, Dolan also raised the idea that the pitch range of the cello sits in not only the singing but also the speaking range of the voice (both male and female) and that this may contribute to the level of connection that I, and others, feel with the instrument as a communicative tool.

Soon after my discussion with Dolan, on the 14th of May, I met for an interview with Howard Penny in his teaching room at the South Melbourne Town Hall. This interview lasted for approximately 50 minutes. Penny’s focus was principally on
the idea of rhetoric in music and how that can be transferred to string instrument practice (with specific reference to the cello). He explained how various aspects of speech and language can be translated into the technique of the cello and also discussed his experience working with singers as a continuo player in opera and oratorio.

A number of weeks later I undertook a short interstate trip to Canberra and Brisbane to conduct interviews with Paul McMahon and Robert Davidson respectively.

McMahon and I met at his teaching studio at the Australian National University School of Music in Canberra on the 23rd of June and our interview lasted for 45 minutes. McMahon has a career as a tenor in early music performance and so spoke very much from that perspective, concentrating on the way singers gain an idea of expression and musical shaping from instrumentalists in that setting. He also spoke at length about the ideas of rhetoric and language in musical practice.

I met with Davidson in his office at the School of Music at the University of Queensland in Brisbane on the 25th of June. Our discussion was about 40 minutes long and covered a wide range of topics, from the role singing plays in his compositional process and his ‘voice portrait’ compositions to his practice as a double bass player and his work with South Indian vocal music. Davidson also talked about more abstract ideas associated with the use of the voice in instrumental practice, such as its role in the development of musical personality.

On the 28th of July I met with Anna Connolly in Brunswick, Victoria where we undertook an extended interview lasting almost an hour-and-a-half. Connolly was very interested in the research topic and had a number of suggestions as to how technical aspects of singing might translate to stringed instruments. She also spoke about her experience of teaching singers who have an instrumental background and different approaches she uses in the teaching studio.

My final interview was with Simon Wallfisch who lives in London so a face-to-face meeting was not possible. Instead, we arranged to speak via Skype on the afternoon of the 7th of August. Technical problems arose part-way through our discussion, however, and after about 25 minutes we had to postpone the
conversation, continuing the following morning. The discussion ran for a total of about 1 hour and 15 minutes. Wallfisch was very generous with his time, speaking of his experiences as a musician who has incorporated both singing and cello playing into his practice and especially about his work as the ‘Singing Cellist’ where he performs vocal duets (accompanied by piano), singing one of the parts and playing the other. He also had much to say about psychological approaches to singing, cello playing and music-making in general.

Transcripts of the interviews, along with the questions prepared for each participant, are provided in Appendices B to G. All of the participants were very happy to speak with me and share their thoughts and most indicated that they thought the topic was a fascinating one that had good research potential. Having had only limited experience with interviews of any type, and then usually as interviewee rather than interviewer, I found my role as facilitator quite challenging to begin with and was not at all confident in my abilities to ask pertinent questions in a succinct and clear way and to improvise questions when necessary. However, as the interviews progressed and I gained experience and confidence, I felt more comfortable in my role as interviewer, noticing on listening back to the recordings that my speech became more fluent and my thoughts more ordered which helped the overall flow of the conversations.
Chapter 1 - Technical aspects

This section explores the issues identified in both the literature and interviews in relation to the key concepts that emerged.

Breath and breathing

Breath is indispensable for singers: they cannot make music without it. Good singing technique involves, among myriad other things, the capacity to use the breath with maximum ease and efficiency through the development of muscle tone around the diaphragm (see Alt, 1990, p.33). Though string players do not need actual breath to make their instruments speak, it is still vital both in the physical preparation for a phrase, such as an ensemble breathing together before playing (Anna Connolly interview, p.128, para.16 & p.129, para.1-5), and also in mentally approaching phrasing and the sound-world of a piece. Pleeth (1982/1992) suggests to cellists that ‘when you think of your bow arm, think of air and breathing … [T]here is in string playing a natural flow of ‘air’ perfectly related and regulated by the needs of the sound at any given moment in the music.’ (pp.44-45). He makes the point more emphatically still:

One can hardly over-stress the importance of ‘breathing’ in playing, and the importance for cellists to learn to ‘breathe’ with the bow: to pause and retake the bow again, to space between notes and between phrases in the same instinctive way they breathe and articulate in speech. All cellists need to learn to develop playing techniques which are the equivalent of the lips articulating, the lungs taking in air. (pp.56-57)

Mantel (1995) comments that breathing in at the start of a phrase as if one were to sing is commonplace in string playing (p.46), while Applebaum (1986) notes that ‘[T]o a great extent, [a string player’s] duty is to phrase in the same manner as one breathes. There is a relationship between the two that must be carefully cultivated.’ (p. 135). Connolly also points to the importance of the breath in preparing a phrase: ‘[W]hat comes before that onset of sound is everything in anticipation of what the upcoming phrase is. So it’s the intention; that is part of [the] moulding.’ (Anna Connolly interview, p.129, para.7).
As a student at university, Robert Davidson took singing lessons to help him approach phrasing on his main instrument, the double-bass. Speaking about this experience, he comments that:

[F]rom the singing I think the biggest thing was just thinking about where you're breathing – being aware of the breathing, being aware of your body, posture and really thinking about where the line’s going in a melody. (Robert Davidson interview, p.105, para.9)

He would also take the double-bass music he was learning to these singing lessons and sing his part for the teacher, developing an awareness of singers’ breathing that has continued to influence his musical practice: ‘[D]epending on the music, I will often work out the breathing in the same way … you would if you were … a woodwind [player] or singer.’ (Robert Davidson interview, p.106, para.8)

The act of breathing is a two-stage process, involving inhalation where air is drawn into the lungs and exhalation where it is expelled again. On a stringed instrument, this process can be related to the use of the bow: the ‘up’ bow stroke can be thought of as an inhalation, with the arm contracting in to the body, and the ‘down’ bow stroke an exhalation, with the arm and chest expanding through the stroke. Philips (n.d.) puts it well in her article ‘The breathing bow for cellists’: ‘The in-breath followed by the out-breath is expansion and contraction which is the essence of bowing’ (para.3). Connolly observes that the outward physicality of these movements compared with the mostly hidden physiology of actual inhalation and exhalation can aid a singer’s concept of breathing, stating that ‘The stringed instrument is the most beautiful one to give us the indication of what inhalation is.’ (Anna Connolly interview, p.129, para.3).

This idea of inhaling and exhaling with the bow is perhaps easiest to understand when considering the tools of the Baroque period, when bows were weighted with the balance point positioned more toward the frog. With subsequent modifications to bow design and structure, including an ‘evening out’ of weight distribution in the bow stick, this exhalation/inhalation concept has become less
emphasised, with the ability to extend a melodic line over two or more smoothly joined bow lengths coming to the fore. Pleeth (1982/1992) explains that

[T]he baroque bow ... is ideal for achieving the articulations needed for baroque music ... The modern bow, with the curve of its stick opposing that of the bridge, and its greater hair tension, has a natural tendency to spring away from the string. This gives it two qualities which were required for music from the Classical era onward (qualities which were not inherent in the Baroque bow): the ability to play spiccato and the ability (through containing this natural energy of the bow by pressure with the forefinger) to sustain long expanses of melody. (p.264)

Bylsma puts it more succinctly: ‘The old bows are made much more for speaking, the modern bow much more for singing.’ (Sherman, 2010, p.218).

I have found this idea directly applicable to my own practice through a range of repertoire I have studied. For example, in the opening of the Sarabande from Bach’s *Suite no. 6 in D major for unaccompanied ‘cello, BWV 1012* (Figure 1.1), a work obviously written with the Baroque cello and bow in mind, I felt there to be a strong feeling of in-breath and out-breath with the bow. Specifically, in bars 1 and 3, the down-beat can be thought of as an exhalation gesture while the second and third beats clearly suggest an inhalation preparing for another exhalation in the following bar.

![Figure 1.1: Bars 1-4 of the Sarabande from J.S. Bach’s Suite no. 6 in D major for unaccompanied ‘cello, BWV 1012.](image)

Contrasting with this is the opening phrase of the first movement of Samuel Barber’s *Sonata for Cello and Piano, Op. 6* (Figure 1.2): while still a ‘singing’ melody of sorts, I perceived that the entire four-bar phrase must feel like it is
without a break for breathing, the first two bars leading inexorably to the climax at the beginning of the third bar and then carrying through to the end of bar four. Only at this point should a sense of taking a breath be apparent. Such unbroken phrasing can most easily be achieved with a bow that has a more even weight distribution than its 18th century predecessor.

![Figure 1.2: Bars 1-4 of the first movement Allegro ma non troppo of Barber's Sonata for violoncello and piano, Op.6.](image)

It is widely accepted amongst string players that there are three main variable elements which can be considered when using the bow: bow speed, bow weight and 'contact point', which is the position at which the bow contacts the string in relation to the bridge (see Fischer (1997/2008), pp.35-58 for an in-depth examination of these concepts and their relationship to tone production). All of these elements can be related to the breath in singing/speaking.

Bow speed has a fairly obvious relationship to the speed of airflow in singing and speaking and affects the volume of sound as well as the sense of 'travel' of the line, which is the sense of movement or urgency through a phrase. Bow weight, which is the amount of pressure applied to the string by the bow, finds a less straightforward but still pertinent analogy in the sub-glottic pressure of the airflow in vocalising, a factor in different modes of phonation. These will be discussed in the following section. Contact point has the most abstract connection to the breath of the three elements. A cello string is harder to vibrate when bowing close to the bridge and produces a very direct, sometimes harsh sound with strong upper partial harmonics, whereas placing the bow closer to the fingerboard makes the string easier to vibrate but with a loss of focus in the tone, creating a less distinct, 'woolly' sound. Perhaps the best analogy is that of breath support: a contact point close to the bridge corresponds to strong diaphragm support, as it is possible to sustain a long, slow bow in that position (like a long, slow breath), whereas bowing over the fingerboard requires a faster
bow speed and creates a naturally more diffuse sound, which equates well with the fast, unfocussed airstream caused by a lack of muscular support in vocalising.

In practice, these elements of bowing are interrelated and are combined to create a palette of different tone colours and expression. Fischer (1997/2008), writing on aspects of tone production, notes that ‘every shade of tone colour is available through the different degrees of speed, pressure and distance from the bridge’ (p.48). Penny also comments that when using the bow

- Contact point, bow speed, density around the string [bow weight] and varieties of that during a note and passing to the next note [are] what is going to actually create not only a sense but a very real feeling for line and development of a narrative in a musical sense. (Howard Penny interview, p.80, para.3)

The elements of breathing in singing and speaking function in much the same way, and experiencing the variety of outcomes in one can shape and influence the other.

Pacing the breath is vital for effective phrasing in both speech and song, and this concept can also be transferred to the cello. When approaching the text of vocal music (as well as in speech), there is generally at least one point of emphasis in each phrase. This is often highlighted by a composer through such elements as pitch (often a higher note in comparison to those around it), length (perhaps longer) and a difference of articulation on a particular note or group of notes, or a combination of these elements. As a singer has only one breath at a time to sing with, they learn to pace the use of their breath and exertion to maximise the ‘peak’ of the phrase. This can translate well into cello playing, using the bow to imitate the singer’s breath. This is not to say that each phrase played on the cello needs to be contained in a single bow length (in fact, this is rarely the case), however the pacing of breath involved in a singer’s phrasing can be emulated by judicious and skilled bow use.

As well as considering the places of emphasis in a phrase, a singer must also be conscious of their breath use both leading up to and going away from these points, as they commonly occur part-way through a phrase length. In my
experience, this means that the breath needs to be metered out more slowly to begin with, rising to the greatest flow rate at the top of the phrase, while still leaving enough air to complete the phrase in a well-supported manner. Players of string instruments have an advantage over the singer in this case as they never ‘run out of breath’, so to speak; the bow direction is simply reversed to extend a note or phrase. Given this fact, however, string players can fail to give adequate consideration to the non-climactic parts of a phrase, resulting in melodic lines that can lack natural shaping. By actively engaging in a singing practice, string players can use the concept of a singer’s breathing to assist the shaping of phrases on their instrument.

The first movement of Schubert’s *Sonata for Arpeggione and Piano, D. 821* illustrates these points regarding the pacing and use of breath and their correlation to string playing. Starting at bar 10, the first main statement that the cello plays (Figure 1.3) is vocal in nature, with obvious points of rest for breathing being the middle of bar 13, the middle of bar 15 and after the first note of bar 18. These are indicated in the first two cases by actual rests in the music and in the third by a dramatic, nearly two octave change in register. The climax of the first phrase comes at the second half of bar 12, right near the end of the phrase, so if it were to be sung, the breath would need to be conserved somewhat in the first two bars while still keeping momentum through the phrase. On the cello, this can be achieved by careful planning of bow speed and contact point and also judging the weight needed, i.e. not lightening the bow too much at the beginning of bar 11. The phrase starting the end of bar 15 has its climax on the first note of bar 17, just over halfway through the bar, so the descending arpeggio following the climax needs to be well supported to avoid the sound dissipating too soon. This applies even more to the next phrase (bars 18 to 21) which is similarly shaped but lengthier and with more significant material after the peak in bar 20.
In a singing lesson with Dr Susannah Foulds-Eliot in 2014, I was introduced to the concept of the singer preparing their ‘instrument’ for use. The idea is that the singer activates various physical elements, including the diaphragm and relevant parts of the vocal tract, on the ‘in’ breath in readiness for the ‘out’ breath, when sound is produced. In this way, the physical system is transformed from a relative ‘rest’ state perhaps suitable for conversational speaking to a state which is primed for the production of the range, quality and power of sound necessary for singing to occur. At the point of transition from the ‘in’ to the ‘out’ breath, a different set of muscles engages to actually begin the process of vocalisation or, in other words, to ‘play the instrument’. Unlike singing, where changes in physiology can affect the vehicle of the sound production, a cellist cannot make any physical changes to their instrument when preparing to produce a sound – the instrument is essentially static. However, the cellist can prepare their own body physically and psychologically for the production of sound on their instrument, even if the instrument itself does not change.

Allied with this breath preparation is mental preparation for the character or mood of the upcoming phrase. In singing, this preparation actually assists the relevant muscles to engage in an appropriate manner for the character required. On the cello, the physical effect of this mental preparation is less marked but still applicable; a gentle mental ‘in-breath’ is likely to produce less muscle tension for
a phrase than an active or strong one. A good illustration of this concept is found in the Schubert sonata example (Fig. 1.3) discussed earlier. The first episode has long broad lines, while the second is more playful and dance-like, and a different mindset and use of muscular energy is required to convey these characters. At the juncture between these episodes (after the first note of bar 22), there can be a short mental in-breath taken before the new phrase begins, and in this breath the cellist’s physiology, that is the muscles in the arms, hands and fingers that control sound production, can adjust in preparation for the new musical character required.

As is evident from the above discussion, the breath is a vital part of singing and speaking and, as illustrated through the examples examined, the elements of its use have informed my practice as a cellist. Breathing alone, however, is not enough for a singer to bring about an expression of emotion or thought; in combination with the breath, the vocal folds need to be stimulated into action to produce vibrations or, in other words, to make sound. This production of sound in singing and speaking is called phonation and will form the basis of discussion in the following section.

**Phonation**

The production of sound by the voice is a complex process, and it is not within the scope of this research to examine in depth the physical mechanism involved. Loren Jones (1975) gives a simplified overview of the process:

> In order to produce a sustained pitch, the singer compresses breath stored in his lungs, brings his vocal folds together with some tension, and the vocal folds, (Vocalis Muscles) begin to buzz ... The singer may change both the volume and the pitch by altering the degree of breath pressure on the vocal muscles or the degree of tension at the vocal folds. (p.5)

The point in the out-breath at which this buzzing occurs is called the ‘onset’ of the sound and is an important stage in the vocalisation process. As Connolly advises: ‘Having a good onset of sound is key for the timbral quality of the phrase coming up, and the onset of sound can also tell you what the problems with somebody’s instrument are.’ (Anna Connolly interview, p.127, para.4). Connolly
also quotes three terms coined by Swedish musicologist Johan Sundberg – ‘pressed’ phonation, ‘breathy’ phonation and ‘flow’ phonation (Sundberg, 1987). These correspond to different modes of vocal fold function (see Sataloff, 1999, p.47), ‘pressed’ relating to an overly thick edge of vocal fold, ‘breathy’ to an overly thin edge and ‘flow’ corresponding to the optimum thickness of vocal fold edge for classical singing (Anna Connolly interview, p.127, para.6 & p.128, para.8). There is a fourth mode, ‘neutral’ phonation, which also involves a thin edge of vocal fold, which for the purposes of this discussion can be ignored. Contrary to what may be expected, the use of the pressed mode of phonation, which requires the greatest energy of the four modes, actually produces less volume of sound than using flow phonation (Anna Connolly interview, p.128, para.8).

In string instrument terms, these modes can be seen to relate directly to the pressure of the bow on the string, or the bow ‘weight’. When too much pressure is applied, the sound becomes harsh, just as in pressed phonation, while too little pressure produces a thin and ‘airy’ sound, corresponding to breathy phonation. Like flow phonation in vocalising, there is an optimum pressure for the bow to apply to the string (which varies with bow position and bow speed) to produce a clear, resonant and free sound for minimum effort with the bow arm. Just as in singing, this ‘flow’ bowing pressure creates more volume of sound for less energy expenditure than a pressed application of the bow (Anna Connolly interview, p.128, para.8-10). Not only does the instrument resonate more freely when this technique is applied, the hair on the bow is actually able to conduct vibrations from the string through the stick and into the player’s fingers/hand/arm, allowing for a greater sense of physical connection with the sound.

It is this concept of maximum reward for minimum effort that Simon Wallfisch raises when discussing his work as the Singing Cellist:

You’re finding that point, if you’re balancing plates on ... a stick ... you’ve just found that middle point where you have to do the minimum, the absolute bare minimum, but you’re keeping the plates spinning. That is
the case for playing the cello. That’s the case for singing ... [i]t’s the same for dancing ... [T]here must be a name for it, that relaxed tension that’s in sport, in dance, in music, in playing, [in] everything. (Simon Wallfisch interview, p.163, para.5-7)

Phonation plays an important role in singing and speaking, and finds an analogy in the use of the bow in cello playing, however just as the breath is empty without phonation in singing and speaking, phonation itself carries little communicative power without the sound being modified to form the words and sentences of a text. The building blocks of a spoken/sung text, namely vowels and consonants, and how they can be expressed on the cello will be the focus of the next section.

Vowel and consonant production

Vowels and consonants are elements of language that are crucial to the communicative power of singing and speaking. Though no specific text is communicated when playing the cello, through the implied text of the music the string equivalents of vowels and consonants can be found. The idea of an implied text in instrumental music is closely related to the concept of musical rhetoric, an idea which will be explored later in this paper.

Howard Penny strongly promotes the idea of music being related to speech, and therefore translates the concepts of vowels and consonants into his playing. He believes not only that a cellist can produce vowels and consonants through their instrument, but also that varied consonants and vowels, such as diphthongs, are possible and indeed desirable in performance on the cello. Speaking about his approach to these concepts, Penny notes that

[I]t’s generally about ... flexibility. So for me a note rarely goes from ‘there’ to ‘there’ in a straight line. It would be an exception or an expression of something almost inhuman [for this to be the case], so therefore the vowel corollary of that [is] diphthongs like ‘ai’, ‘ou’, ‘oi’, all those things. So I’d be thinking in terms of those when I’m shaping a note, for example. (Howard Penny interview, p.74, para.4)
He also stresses that there is a natural variety in the way vowels are sustained and consonants are articulated in speech, so there may be a comparable variety in these elements employed by an instrumentalist when approaching a piece of music: ‘Just as no two consonants or vowels in any one word or in any one situation are going to be similar, so lengths and articulations of notes are unlikely to be similar.’ (Howard Penny interview, p.76, para.5).

Consonants are emulated on the cello by employing different articulations with the bow. Sharp strokes with a quick release, played from the string or approaching it from above, can imitate hard consonants such as ‘t’, ‘p’ and ‘ck’, while a gentler start to the bow stroke corresponds to softer consonants such as ‘m’, ‘n’, ‘l’, ‘f’ and ‘s’. Two excerpts from Boccherini’s Sonata in A major, G.4 illustrate the way in which these concepts can be applied in cello performance. Figure 1.4 shows the opening bars of the first movement, where the relaxed, lyrical nature of the music and the steady tempo mean that relatively gentle articulations with the bow, or in vocal terms, soft consonants, could be utilised. This is especially true for the stressed notes in the phrase, such as the third beats of both the first and second bars. The second movement, however, is more martial and energetic in character, and these qualities may be emphasised by a sharper bow attack, corresponding to harder consonants speaking and singing. The opening bars of this movement are shown in Figure 1.5: note the staccato articulation which also indicates a sharpness of consonant quality with the bow.

![Figure 1.4: Bars 1-4 from the first movement Adagio of Boccherini’s Sonata in A major, G.4.](image)
Although less obvious, the concept of vowels can also be usefully applied in cello playing. The abundance or relative lack of overtones, largely produced by the proximity of the bow to the bridge, makes a range of brightness in the sound, and this can be viewed as a change in vowel sound. As Penny suggested, as the bow is moved closer to the bridge, the overtones produced become more prominent, corresponding to a brightening in the vowel colour from ‘oh’ or ‘oo’ to ‘ee’ (Howard Penny interview, p.2, para.4). This is a very subtle colour change on the cello and tends to impact more on the projection and directness of the sound than on any noticeable vowel difference, such as would be heard in singing and speaking. Nevertheless, focussing on subtle changes in colour can be useful when imagining and attempting to recreate the vocalisation of a line. Looking at the Schubert example once again (Figure 1.3, page 16), the high points of the phrases, if sung, would be most effective on an open vowel such as ‘ah’. These notes, as peaks of a phrase, would also be the most projected, requiring strong upper partial harmonics: in cello playing, this means bowing closer to the bridge. Thus, when approaching this section, the climaxes of the phrases can be thought of as well-projected open vowels, increasing in intensity until the third climax in bar 17 and then less intense in bar 20.

Since beginning to consider a vocal approach to instrumental music making more closely, I have found myself occasionally thinking in solfege whilst playing scales on the cello. I have found that in thinking of vocalising the scale, and particularly with the pattern of syllables in solfege, I have felt a greater sense of ‘journey’ and shape in the scale, where there is a similar basic sound for each note produced. It is possible that while holding a certain vocal sound in my mind, subtle alterations in the pressure, speed and position of the bow may occur subconsciously to bring about a leaning towards the vowel sound of that syllable.

**Figure 1.5: Bars 1-2 from the second movement Allegro of Boccherini’s Sonata in A major, G.4.**
Though it may involve subtle colouring at times, vowels and consonants from speech and song can be imitated on the cello through the use of the bow. In fact, the breath, phonation and the production of vowels and consonants are all elements which find analogies in various techniques associated with the bow; there are also important elements of singing and speaking that relate to the use of the left hand in cello playing. Two such elements, vibrato and shifting (including portamento), will be examined in the next sections.

*Vibrato*

Vibrato, present in most trained singing but not usually in speech, is ‘a regular fluctuation of pitch or intensity (or both), either more or less pronounced and more or less rapid.’ (Moens-Haenen, n.d.1). This can produce a warmth of tone or a shimmer in the sound; Connolly notes that ‘[V]ibrato... [is] the human element that comes in to warm everything up, to make it a greater and a richer acoustic quality... it’s the thing that shows emotion.’ (Anna Connolly interview, p.134, para.3). Over the centuries, vibrato has been used in both singing and string playing to varying degrees and in many different forms as an ornament in music. Tarling (2000) notes that

> Musicians of all types must have used vibrato at least since the invention of the violin, in imitation of the human voice ... The existence and technique of vibrato is well documented by several violin tutors. However, discussion concerning its frequency and use has been the subject of endless debate, in modern times as well as in the early years of violin playing. (p.58)

An interesting comparison can be made between the frequency (number of oscillations or beats per second) of vibrato in trained singing and string instrument playing. Connolly points to research that shows that in singing a vibrato rate of approximately 6.5 to 7.5 oscillations per second is the range that the human ear finds pleasing; anything below or above that range begins to sound unpleasant (Anna Connolly interview, p. 133, para.5). Cellist Michael Fitzpatrick also comments on research that shows that great string players of the past such as Jascha Heifetz and Pablo Casals, along with tenor Enrico Caruso, had
a vibrato frequency of 7 to 8 oscillations per second (Fitzpatrick, 2009), which is comparable to the range for mentioned by Connolly. Whether or not these players were consciously aware of the ‘singing’ nature of their vibrato, this similarity points to a correlation between the two practices and could be used by string players as a model for acquiring a more cantabile tone on their instruments.

It is not simply the comparison of the oscillation rate of vibrato in both string playing and singing, however, that is of interest: its effect on certain notes and use within the context of a phrase are also important aspects to consider. Howard Penny summarises these by referring to ‘how and when [vibrato is] applied; how it supports a vowel; how it can transform a note [and] how it can shift character either within a note or within a phrase.’ (Howard Penny interview, p.77, para.2). According to Penny, vibrato can help to bring out an accent and give notes momentum within a phrase, and this supports the main work of phrasing done with the bow.

Vibrato has long been connected with emotion in music. Under the entry ‘Vibrato’ in The New Grove Dictionary of Opera (n.d.), Moens-Hanaen notes that vibrato in 18th century singing was used to express not only ‘feminine notions of softness and sweetness’ but also ‘violent emotions … [such as] fear and anguish.’ (para.7). Connolly also speaks of the link between vibrato and emotion in music:

If you are singing about something urgent your vibrato has to speed up. If you’re singing a lullaby the vibrato is not going to be fast. It’s a complete link between the emotion and what the vibratory rate is, but it’s also linked into music: when you’re getting towards a climax of a phrase it is going to increase. It’s also going to increase with dynamic. (Anna Connolly interview, p.134, para.5)

This applies equally well to the practice of vibrato on a stringed instrument, and inspiration for appropriate use of vibrato in these contexts can be taken from either observing vibrato use in trained singing or experiencing singing with vibrato directly.
A singer may vary their vibrato to bring out a particular part of a phrase; in the majority of cases, this will mean a widening and/or quickening of the vibrato to produce the desired aural emphasis. Transferring this idea to the cello, in the Schubert sonata example (Fig 1.3, page 16) it would apply to all the points of climax, with a different speed and width of vibrato on each depending on the context, except perhaps in bar 14 where the high B natural in the middle of the bar is not held for long enough to support significant vibrato.

Vibrato can be considered a by-product of good support in trained singing (Moens-Haenen, n.d.1), whereas in cello playing it is a left-hand skill that is developed and refined over a long period of time. Another left-hand technique that falls into this category is the connection of notes between different hand positions, or ‘shifting’. The relationship of singing and speaking to this technique, as well as the linked concept of portamento, will be discussed in the following section.

*Shifting and portamento*

The key-less and fret-less nature of the orchestral string instruments means that moving between notes, or shifting, can be done in a smooth and expressive way, just as it is possible for a singer to do. The arrival at a note after a shift on a stringed instrument can be either anticipated with the left hand, meaning that the ‘old’ finger does the majority of the shift and the ‘new’ finger is placed on the string at the arrival note, or delayed, with the ‘new’ finger coming into action earlier in the shift and smoothly gliding to the arrival note (Meuller, 1995). Thinking about these techniques in vocal terms, the ‘delayed’ connection is one where there is no consonant or vowel change on the arrival note or where the change occurs just before the connection, whereas the ‘anticipated’ shift corresponds to a change of syllable in a word or the start of a new word altogether.

Schubert is widely known for his lieder, and song-like qualities abound in his instrumental music. In the Schubert sonata example (Figure 1.3, page 16), there are instances of both anticipated and delayed shifts that I chose to employ in this piece. For the leap from the D to the B in the second half of bar 14, I chose to use
a delayed shift from my first to third fingers as the figure is under a phrasing slur (and so could be in the middle of a word, were there a text associated with the music). The strength of the arrival note, along with the change of bow, in the shift across the barline from 16 and 17 (G-sharp to E) prompted me to articulate the top note with an anticipated shift; in practice, this connection was made more with a stretch in my fingers than with a shift in my hand position, though an element of shifting was still involved.

Portamento (literally translated as ‘carrying’) is the sounded connection between two notes, and on a stringed instrument means that the left-hand finger/s and bow are engaged to a greater degree than normal on the string during a delayed shift. For a singer, it involves vocalising part or all of the connection between two notes, usually on the same vowel sound, and this practice ‘was considered an essential element of good singing until about the beginning of the 20th century’ (Jander/Harris, n.d.). It is a nuanced technique and one that can easily sound contrived or ugly if overdone, but it can also lend a musical gesture great expressive power. Flesch (as cited in Stowell, n.d.) is critical of its perceived misuse, advising that ‘portamento usage should coincide as far as possible with the climax of a phrase … [stressing] the importance of sensitive dynamic shading’. Wohne (1976) states that in both recitation of verse and in singing, portamento has a powerful role in communicating feeling, and McMahon argues that singers can actually gain a greater understanding of deliberately employed portamento through observing string players, as the mechanism for the sounded connection can be both seen (by the fingers moving on the string) and heard (Paul McMahon interview, p.96, para.8). Nonetheless, experiencing vocal portamento through singing and speaking can aid an instrumentalist in finding a more natural expression in their instrumental practice, and I have certainly found this in my experience.

In the Boccherini sonata mentioned earlier, there are instances where portamento can be used in both downward and upward shifting. In bar 11 of the first movement (Fig. 1.6), the falling C-sharp to A in the second beat of the bar seemed to me to indicate a sighing gesture, and so I used a fingering which enabled me to shift without changing fingers, meaning that there was a slight
slide between the two notes. Bar 17 from the same movement (Fig. 1.7) has an expressive leap of a fourth from E to A, with an harmonic being used on the higher note, and to highlight this I chose to employ an anticipated shift and subtly glide on my third finger up to that note.

Figure 1.6: Bar 11 from the first movement Adagio of Boccherini’s Cello Sonata in A major, G.4.

Figure 1.7: Bar 17 from the first movement Adagio of Boccherini’s Cello Sonata in A major, G.4.

Features of string playing and singing such as portamento rely on having a continuous range of pitches available to the performer. In practice, however, there are elements of discontinuity that must be addressed in an effort to make smoothness across the range possible. In singing, these take the form of changes of register and it is how this concept of registration can be applied to string playing that will be examined in the following section.

Registers

The concept of registers in the voice is an interesting and somewhat controversial one, with varying schools of thought on the number and qualities of the different registers. Larkcom (1919) comments that, in vocal pedagogy, ‘we have teachers who deny the existence of registers, teachers who say they should be ignored, teachers who insist on five, or three, or two ... and again others who never think about them at all.’ (p.211). In addition to the existence and number of vocal registers, there are also differing views on the distinctions between them: for males, it is generally accepted that there is a ‘chest’ register for the lower notes and a ‘head’ register for the higher ones (Behnke (1886) terms these
the ‘thick’ and ‘thin’ registers), though some endorse a ‘mixed’ register between the two (Klitzke, Theimer, Thurman, & Welch, 2004). Dealing with the differences between these registers and making the change from one to another fluid and smooth are important aspects of the singer’s art: as Connolly states ‘[O]ne of the ... hallmarks of good singing technique [is] an evenness of sound from bottom to top.’ (Anna Connolly interview, p.131, para.11).

The area in which one register changes to another is often referred to as the passaggio, literally the ‘passage’ through which the voice travels from the lower to the higher parts of the voice (Steane, n.d.). This area is often difficult to handle vocally and requires much work to negotiate smoothly and effectively. Depending on the context of the music, the chest register can be extended upwards (as long as it does not stay there for too long), giving the higher notes more weight and power. Similarly, the head register can be brought down into the lower parts of the voice, producing a lighter tone quality in those notes.

A similar idea to the passaggio is found in cello playing, though it is not commonly called by that name. When notes are played with the left thumb behind the neck of the instrument, the hand is in what is called the ‘neck’ positions. For higher notes on the string (further towards the bridge), the thumb must be brought up behind the other fingers in what is known as ‘thumb’ position. There is a point, however, as the thumb shifts along the neck where it can go no further and is blocked by the body of the instrument. At that point the thumb can either stay behind the neck and the fingers can stretch forward to play higher notes or the thumb can be brought up on to the neck to facilitate further movement (see Anna Connolly interview, p.125-126). This transition between neck and thumb positions is similarly troublesome for the cellist as the passaggio is for the singer, and requires much work to be able to negotiate smoothly. Like the extension of vocal registers mentioned earlier, the neck position can be extended upwards with the fingers reaching forward to facilitate smooth joins between notes or rapid passages, though some flexibility in movement can be lost, and likewise the thumb position can be brought down into the neck positions, though the increased physical distance between the
notes in the lower positions can make executing passages in this context awkward and ungainly.

The first two bars of the Boccherini Sonata (in Figure 1.4) demonstrate this well: beginning in the neck positions, the music soon rises in pitch and the performer can stretch up into thumb position while leaving the thumb behind the neck. This occurs in the second bar as well, with the fingers stretching even further, making the execution of this figure particularly difficult. Figure 1.3 contains an example of the opposite situation: because of other fingering considerations, the thumb may be brought up onto the neck when shifting to the B in the middle of bar 14. This is at a much lower point on the fingerboard than the thumb is normally used, making the passage hard to negotiate. Both of these situations require a very flexible left-hand structure in order to perform the passages as accurately and seamlessly as possible.

Another way in which the concept of registration can be applied to the cello is in the tone quality and responsiveness of the different strings. Though not strictly related to registers in the voice, a similar approach to dealing with their differences may be taken in attempting to emulate the fluidity which a fine singer may achieve throughout their range, by adjusting the use of the bow to create a more consistent tone colour between adjacent strings. As mentioned above, the different strings on an orchestral string instrument have their own distinctive tone colours and responsiveness. The lower strings are thicker and their tone colour is darker than the higher strings, caused by a relative difference in the overtones produced when played. To make this difference as unobtrusive as possible when moving from a lower string to a higher one, the player can aim to produce stronger upper partial harmonics by moving the bow closer to the bridge, which also requires more bow weight, creating more brightness in the tone and thus ‘moulding’ the sound quality toward that of the higher string. The sound of a higher string can also be mellowed by moving the bow away from the bridge (and decreasing weight) to give the reverse effect, which is especially useful when there are only a small number of notes on the upper string in a passage and they can easily ‘stick out’ of the texture. For example, in the rapid passagework in Figure 1.8, the upper notes of each group of demisemiquavers
are most likely played on the A string, with the rest of the notes on the D string. To create an evenness in each group of notes, I made sure that the bow was no closer to the bridge on the A string than on the D string, and also graduated the bow pressure slightly so that the A string notes were played with slightly less weight in the bow.

![Figure 1.8: Bar 22 from the second movement Allegro of Boccherini’s Cello Sonata in A major, G.4.](image)

The smooth change between adjacent strings with the bow is made by a shift in the position of the bow arm before the string crossing occurs. For each string on the cello, a different plane of movement is required in the bow arm and so moving the arm position towards the new string level before the string crossing helps in the fluid transition from one arm height to the next. It also brings the hairs on the bow closer to the ‘new’ string, helping to avoid a clunky movement and accented note at the point that the string crossing takes place. The opening phrase of the Barber sonata mentioned earlier (Figure 1.2, page 13) provides a great example of this technique: the ideal sound for this passage is to have one line leading inexorably from the lowest depths of the instrument to the highest string and to do this, one must change from one string to the next with as smooth a bow action as possible. A dramatic crescendo over the two bars adds to the technical challenge of achieving a seamless quality in this phrase.

In this chapter, it has been found that certain technical elements of singing, namely breathing, phonation, vowels and consonants, vibrato, portamento and registration all have an important influence on how I approach playing the cello. Language, as a ‘non-technical’ aspect of the use of the voice, will form the basis for discussion in the following chapter.
Chapter 2 - Language

One of the most interesting ways that the human voice relates to and can inform instrumental practice is in the field of language. The links between language and music are vast and have been investigated at length by musicologists and linguists, and it is certainly not within the scope of this research to present a detailed examination of this topic. This chapter will therefore touch on a few key elements of this area that arose through reflecting on my own practice and in the interviews conducted.

Language is an essential element of the vast majority of vocal music, the only exceptions being works that deliberately avoid the use of words, such as vocalises, which instead employ sustained vowels to carry the melodic line. This means that there is an intrinsic link in vocal music between the language of a song and its musical elements such as pitch, contour, rhythm, metre, harmony, texture and even form. Indeed, this link is one of the defining differences between vocal music and purely instrumental music, which usually has no such explicit connection.

Paul McMahon stresses the importance of this point, commenting that 'With the good [composers], the musical language and the texts are so intimately entwined. You think of Bach and Handel as the prime examples of that, particularly Bach.' (Paul McMahon interview, p.97, para.5). He strongly opposes the idea of performing vocal music in a language other than the original:

I think that one of the really important things is that the music itself was conceived with the text in mind. Once you remove that and you superimpose something else, you’re actually cutting a lot out of the core of the music itself ... The sound of the language is part of the music and you can’t just suddenly put another language in there and convince me that it is the same music. It’s not. (Paul McMahon interview, p.97, para.5 & p.98, para.3)
This idea of the language of a text being integral to its musical setting can apply to instrumental practice through knowledge of the native spoken language of the composer: even if no actual words are used in a composition (such as in instrumental music), the language that a composer speaks may still exert an influence on their musical expression. This idea has been suggested by many musicologists and is supported by scientific study (Patel & Daniele, 2003). This influence of the composer’s language can be found, to greater or lesser degrees, in rhythmic patterns and motifs, melodic motifs, contours of phrasing, ornamentation and pulse, to name but a few elements. A performer’s own tendencies may be incorporated into this framework of elements, and indeed this is much of what makes their ‘voice’ unique, however it is vital for an intelligible and appropriate reading of a work that the cultural context (including features of the spoken language) be understood and guide the interpretation and execution of the music by the performer.

Another means of incorporating language into instrumental music is by using ‘dummy’ lyrics, devised by the performer but not actually vocalised, to help provide meaning and dramatic character to the music in question. Davidson discusses instances of having used this concept in his own practice:

A great example is this show we’ve just been doing in Topology, Share House, where I found if I was just in the abstract world of the music – and we actually act while we’re playing – the facial expression would just start to wander if I didn’t have some text to link it too, so I put text to this, and things which did tell a story, like – because we just kicked this guy out of the house in the story, so I put words like ‘It’s him or me’ – things which actually helped me to link – hang onto something. ... often like when I was playing [the] Koussevitzky bass concerto, I can’t remember what the words were, but there was something about an angry husband or something, because I felt like that’s what the music was about, and it’s what he was saying. (Robert Davidson interview, p.103, para.10 & p.104, para.1&7)

Wallfisch employs a similar approach:
Even when I was playing – and I still do sometimes, learning sonata repertoire or a concerto or something like that, I very often put words to it. I wouldn’t necessarily tell anyone what the words are, but if not words, definitely a character and I always feel playing a Beethoven sonata or a Brahms sonata, that ... it’s so cool because I get to play all the parts. I get to reintroduce, not only with themes old characters or story lines, but you can have all sorts of situations happening and the great thing is you don’t have to tell anyone about it. (Simon Wallfisch interview, p.154, para.3)

Dolan also endorses the use of this concept but warns against over-reliance on it:

I find it a very helpful tool if it doesn’t take dominance of itself, so to speak. It can be a very powerful inspiration tool that launches you within a mode of expressing gestures in the sense that the Baroque concept used gestures ... I tend ... when I do apply this, [to ask] myself and also my students to come with at least two, preferably more than three, different versions so that you don’t get stuck with one set of associations. (David Dolan interview, p.64, para.1)

The idea of using hidden lyrics to assist musical expression is closely tied to the practice of transcribing vocal music for instrumental performance. Whereas dummy lyrics are usually of the performer’s choosing, in transcriptions the words and character of the original setting are largely set by the composer and it is the instrumentalist’s task to convey as best they can these elements in the transcribed version. This can take the form of particular phrasing decisions based on the text of the original work, incorporating differences in stress, movement from one note to another, articulation and tone colour.

As part of a recital I gave at ANAM in 2013, I performed my transcription of the song ‘The Infinite Shining Heavens’ from Vaughan Williams’ song cycle Songs of Travel. It was the first time I had ever undertaken such a project and though transcribing the notes was fairly simple, as the song was set in a good register for the cello (i.e. no change of key or pitch necessary), approaching phrasing and other technical matters took more careful thought.
For example, the first statement in the song (Figure 2.1, bars 2 – 12) contains four lines of poetry which make up either two medium-length phrases or one extended phrase; at a suitable tempo, one would find it nearly impossible (and certainly impractical) to sing the entire statement in one breath. This means that at least one new breath would have to be taken (most likely after ‘night’ in bar 5) and thus two (or more) phrases sung. Not needing to consider the use of breath, a cellist could easily play the whole tract of melody as one phrase, however I found this undesirable in aiming to emulate closely the vocal version of the work.

Figure 2.1: Bars 1-13 of The Infinite Shining Heavens from Vaughan Williams’ Songs of Travel with bowings and string choices.
In the same statement there are several points of emphasis in the poetry and associated music, and assessing the relative importance of these and devising bowing plans to assist in their expression was an important aspect of preparing the music for performance. As an example, from bars 6 to 12, the two main emphases in the phrase are on the words ‘angel’ and ‘showering’. I decided that ‘showering’ was the more important emphasis, mainly due to its pitch and position in the phrase, and so ensured it came on a down bow, giving a natural stress and importance to those notes. Incorporating this bowing and taking into account other factors like the articulation of certain syllables with the bow, the bowing plan that seemed to work best had ‘angel’ played with an up-bow, providing a naturally gentler articulation and less emphasis on that word.

To aid the tone colour and overall texture of the music, I chose to play this entire section on the D and G strings, matching the gentle and awe-struck mood of the text. This gave the music a more covered sound than using the A-string, which was a possible (but undesirable) choice for some of the higher notes in the passage. For climaxes later in the work, such as bars 26 and 43-44, I did use the A-string for a more open and expansive sound. Experience in playing other transcriptions, as well as having the ability to actually sing the original work and feel the ebb and flow of the setting (not to mention listening to several recordings, each with differences in interpretation) helped me greatly in navigating these decisions.

Closely related to language is the concept of rhetoric, that is, the practice of ‘controlling and directing the emotional responses of [an] audience.’ (Buelow, 1980, p. 793) through the spoken word. In other words, rhetoric is a means by which language is used to ‘win people over’ to an argument or point of view. Beginning in the 16th century and finding its zenith in the Baroque era, an entire system of musical practice was built around the idea that rhetoric and its related facets could be transferred to music, and especially to instrumental music which has no words and thus no explicit connection to speech.

The relationship of rhetoric to the human voice is clear: rhetoric is one of the ‘spoken arts’, along with grammar and dialectic (Buelow, 1980), and is
concerned with the idea of persuasion of concept or arousing of emotion in the listener. Much has been written on the subject of musical rhetoric, especially in the 20th and 21st centuries coinciding with a rise in the interest of musicians in ‘Period’ performance practice, and it is not within the scope of this research to enter into a detailed discussion of this idea, though its importance has been stressed by many authors such as Tarling (2000) and Harnoncourt (1988), as well as Charles Rosen (1980/1988) in his influential book *Sonata Forms*. It is enough to say that, like rhetorical devices in speech, musical rhetoric employs a certain vocabulary in a grammatical structure in such a way as to influence the listener’s thoughts or emotions. This vocabulary, which is made up of individual notes and rhythmic/melodic motives (similar to syllables and words), is used to construct musical phrases (sentences), which make up larger sections (paragraphs) and finally whole movements or pieces.

We can see this structure clearly in the sonata form of the Classical period: the exposition, development and recapitulation are like major chapters, the themes and transitioning passages inside those sections are like paragraphs and the phrases which make up these paragraphs are like the sentences. Continuing the analogy of sonata form, we can see that tonal centres are used in a rhetorical way: an idea is established in the tonic key, a contrasting idea is introduced in a different key, these ideas interact and are often set against each other before the conflict is resolved and the secondary theme joins the key of the first theme (Rosen (1980/1988) refers to these sections as opposition, intensification and resolution). In preparing the first movement of the Schubert sonata mentioned earlier, an awareness of these elements guided my interpretation and understanding of the music and helped me gain a greater sense of the narrative of the work.

In music from the Baroque and Classical periods, there is extensive use of ‘question and answer’ phrases and the repetition of musical ideas for emotional impact or to emphasise a musical argument, among myriad other rhetorical devices used to communicate to the listener and engage them in a narrative or musical discourse. Knowledge, therefore, of the grammar, syntax and vocabulary that make these rhetorical devices possible is extremely useful when
interpreting and understanding both music from these periods and much music beyond and before them too.

Penny places much emphasis on the idea of musical rhetoric, which is not surprising given his strong interest in the topic and wealth of experience within Historically Informed Performance (commonly abbreviated to HIP), especially through work with Nikolaus Harnoncourt and the Chamber Orchestra of Europe. Reflecting on the relationship between the human voice and instrumental music, Penny notes that music has its origins in singing and dancing:

Singing almost always implies a text, a specific text. So the musical figures have derived both from physical movement figures, as in dance, and also ... from rhetorical figures, as in figures of speech. So I'm convinced that music functions very much as a language with all the intrinsic building blocks that a language has as well ... [M]usical utterances have grammar, ... they have syntax, ... they have the possibilities of inflection which is what interpretation is then all about. (Howard Penny interview, p.72, para.4)

He goes on to explain that grammar and syntax have implications for rhythmic elements in music in terms of the natural inflection and emphasis/release of speech (Howard Penny interview, p.72, para.5 & p.73, para.1). Stating the case more emphatically, Penny states: 'I fervently believe that unless we're speaking coherently with the instrument we're not making sense and we're not communicating' (Howard Penny interview, p.82, para.1). Eminent cellist Pablo Casals is no less emphatic in this belief, quoted by his former pupil Nelson Cooke as saying: 'Listen to people talking, hear the phrasing, the crescendos, the diminuendos and the degree of emphasis on certain words. The same must be in music. Music is like talking; you have to say something.' (Lee-Wong, 2013, p.45).

McMahon believes that an understanding of rhetoric plays a major part in the successful performance of Baroque era music, especially in the vocal sphere, commenting that

[Rhetoric is] what underpins Baroque music performance and for me it's really the crucial thing, the number one thing. You can think about good
performances and not so good performances but you can really forgive a lot when someone is so deeply engaged in the text and the music and the delivery of that, much more so than someone with a superficially beautiful instrument but with very little or no deeper engagement with or ability to connect with ... an audience. (Paul McMahon interview, p.97, para.2)

Harnoncourt (1988) himself talks of the way emotion affects the articulation of speech: ‘People talk differently depending on whether they have something sad or happy to say: mood affects diction.’ (p. 93). The same holds in music: when the mood of the music is languid, for instance, the instrumentalist will effect changes in their technique to express through articulation, tone colour, etc. that particular emotional state, and this will be markedly different if the music is bright and cheerful. In string playing, much of this technical variance occurs in the way the bow is used in relation to the string, but also can occur through changes in left-hand techniques such as vibrato and quality of shifting.

Dolan offers another view on this subject, speaking of the ‘prosodic’ level of speech; that is, the meaning behind what is said given by the manner of delivery, which can be at odds with the actual content of the speech. The means by which this occurs is through speech intonation, or what Dolan calls the ‘music of the speech’ (David Dolan interview, p.62, para.4). According to Dolan, elements involved in intonation are timing, durations, rhythm, pitch, contour, loudness and timbre, or the ‘colour’ of the voice (David Dolan interview, p.62, para.4).

Robert Davidson provides an interesting study of speech intonation through his ‘voice portrait’ compositions, which are effectively transcriptions of speech into instrumental music form. This makes explicit the aspects of intonation mentioned above, which are not always obvious when listening to actual human speech, and can have both a humorous and powerful aural effect. Davidson is not alone in exploring speech as melody: among others, Steve Reich also worked with this technique, most famously in his 1988 work Different Trains for string quartet and tape in which the instruments imitate fragments of recorded spoken phrases.
Davidson mentions other musicians who have used similar techniques in their compositional process, namely Leoš Janáček and Béla Bartók:

Janáček was obviously trying to capture something uniquely Czech about melody when he was going around transcribing speech melodies, and I think you could say that his operas capture something of the Czech spirit. I don’t think he actually directly imitated speech melodies in his operas, but he used some of the features that he found in music, particularly rhythmic sort of ‘da-da__ da-da__ da-da’ – some of the things which happened in Czech. And Bartók was similar as well. (Robert Davidson interview, p.113, para.3)

Ferdinand de Saussure’s term *paralinguistic* is mentioned by Dolan to describe the rules of intonation in defining meaning within a spoken phrase (David Dolan interview, p.63, para.1). The idea of a musical paralinguistic is closely related to the concept of musical rhetoric; the tools of rhetoric are intended to convince the listener of an argument while paralingual elements exist to communicate meaning, especially when that meaning is different to the surface content of what is said. Penny presents a pertinent example of this when speaking of the role of the cellist as a continuo player accompanying recitative:

You can support what a particular character is saying ... but you can also represent what they’re actually thinking which can be at odds with what they’re saying. That’s the wonderful thing, you can give a totally different dramaturgical dimension to the character by how you realise the recitative line. (Howard Penny interview, p.82, para.7)

In his interview, Simon Wallfisch shares a similar view when talking about the same role:

You [are] giving the character ... I really ate that up because you’ve got the words there and you can give all of the mood, you can lead the harmonies, you can insist on stuff as a continuo player. You can force the soloist to sing it in a certain way just as a lead pianist can really lead the singer, actually. Depending on the singer and the pianist it’s less of an
accompaniment and more of leading, actually. (Simon Wallfisch interview, p.169, para.9 & p.170, para.1) 

As has been noted above, the elements of language in music can, and arguably should, play a significant role in approaching, interpreting and performing instrumental music. The next chapter will focus on the special case of the cello and the voice being used together.
Chapter 3 - Cello with voice

The pairing of the cello with the voice is another channel through which the cello-voice relationship can be explored. This chapter will consider several contexts in which this occurs: the cello and voice alongside each other in opera/oratorio, as chamber music partners and, more unusually, with one performer taking on both roles, that is, singing and playing at the same time. From the cellist’s perspective, each of these situations requires different skills which are enhanced by a knowledge and experience of singing.

In genres such as opera and oratorio, especially in works of the 17th and 18th centuries, the bass line played by the cello provided the harmonic foundation for the musical texture, and supported the melodic material of the vocal line. Referring to this practice in Baroque and Classical eras, Pleeth (1982/1992) comments that ‘cellists participated then in vocal music to a degree which is unknown to us today’ (p.253), going on to describe various ways in which cellists were required to support singers in performance. Tarling (2000) notes: ‘The practice of using the bass line as a fundamental support for harmony ... is one of the main features which distinguishes the language of Baroque music from the earlier Renaissance and later Classical musical languages.’ (p.203). This can be as part of a small cello section or, in the case of accompanying recitative, by a single cellist, often together with one or more additional continuo instruments. Especially in the latter case, it is advantageous for a cellist to understand how singers approach music-making in both a technical and musical sense.

As Paul McMahon notes when speaking about continuo playing in baroque music:

When you get a really good player ... there's two things. It's the combination of the way that the keyboard and the cellist operate together but their ability to almost – well, to second guess what the singer is going to do or actually be so in tune with what the singer is doing that they are just always there. (Paul McMahon interview, p.93, para.5)
He goes on to qualify that statement when asked whether this requires an intimate knowledge of how the voice works:

Yes and no. Probably less rather than more I’d say. It’s more being very familiar with the repertoire and being very across [the cellist’s] own technique and that sensitivity of sound ... [the] use of the bow and to be conscious of what the singer is doing. It’s more I think about aural capacity and musician-ly capacity than it is about intimate knowledge of the voice. But I suppose the more that an instrumentalist works with singers in that way, by its nature it would start to become self-informing, as it were. (Paul McMahon interview, p.93, para.7 & p.94, para.1)

Being a cellist who also sings, I have found it invaluable in continuo playing to have actually experienced how a singer may want to approach shaping a phrase, how breathing might be handled, what the effect of certain parts of words might be on articulation and ensemble and many other aspects of the singer’s art; in short, being able to see things from the singer’s perspective. This in turn affects how I play in terms of the tone colours that I choose to employ, sensitivity to timing and rubato, my use of vibrato and awareness of articulation in the bow, among other aspects.

These aspects also come into play when approaching chamber music incorporating both the cello and voice (and usually other instruments as well). The main difference in this context is that the different roles in the music are shared more equally between the instruments: as a continuo instrument, the cello accompanies the vocal line, providing harmonic and dramatic support but usually not adding to the melodic material, whereas in a chamber-music context the cello, voice and any other instruments involved may share harmonic, textural and melodic roles more or less equally, depending on the work in question.

Chamber music of this type (involving the cello and voice) is relatively rare, with most works being written in the latter half of the 20th century and into the 21st century. There have been a few recordings made highlighting the genre, one of
which is *Hush* by cellist Yo-Yo Ma and vocalist Bobby McFerrin. This album contains original works by McFerrin and arrangements of pieces from the Western folk and classical music repertoire. In these arrangements, the cello takes not only its more standard accompanying role but also the melodic part normally assigned to the voice, with McFerrin providing either an accompaniment or countermelody. This serves to highlight not only Ma’s beautiful and flexible ‘singing’ tone in the mid-to-upper register of the cello but also McFerrin’s agile vocal skills which enable him to use his voice in the manner of an instrument.

My experience of this genre was through Andre Previn’s *Vocalise for soprano, cello and piano*, which I performed as part of an ANAM recital with pianist Leigh Harrold and soprano Karen Fitzgibbon. As its title suggests, this is a work in which the soprano sings without words, instead using an extended vowel sound such as ‘ah’ or ‘ooh’ (in this case, of the performer’s choosing) to carry the vocal line. The lack of words lends the voice a more ‘instrumental’ quality and enhances the chamber-music aspect of the composition, rather than it seeming to be simply an accompanied song. Previn’s use of the individual parts also helps to emphasise this quality: whilst the vocal line, when employed, is principally melodic, the piano and cello also share a significant portion of melodic or counter-melodic material, in addition to their accompanying roles.

---

1 Aside from *Hush*, there are two recordings that I have found of works for soprano, cello and piano: *Shelter: Songs for Soprano and Cello* by Dailey, Kluksdahl and Rowley and *Music from Luzerne – Barab, Bolcom, Larsen, Previn* by Blumenthal, Lloyd and Phillips, as well as other albums not entirely made up of but still including works for mixed ensemble containing cello and voice.
The cello part is particularly wide-ranging, encompassing all three roles – melody, counter-melody and accompaniment – at various times, and utilising all registers of the instrument. In Figure 3.1, the cello plays the principal melodic line from bar 57 to bar 60, then a counter-melody in bars 63 and 64 and an accompaniment starting in bar 65. In several instances the cello acts as a second ‘voice’ to the vocal line, being similar in pitch and melodic contour, and twice reaching higher than the soprano line, taking it to the extremes of its tessitura. This is most prominently featured in the coda (Fig. 3.2) where the cello switches from playing a counter-melody in the mid-range of the instrument (bars 93-94) to imitating the vocal line at a soft dynamic on the upper reaches of the A-string (bars 95-96). Quite aside from the large leap being technically challenging, this requires a flexibility of tone to produce a singing sound that will match the vocal line in its register.
The cello also begins the piece with a short, quasi-improvised introduction which leads into the main body of the music (Fig 3.3, bars 1 to 10). Marked *espressivo*, there is a certain rhetorical or sung quality to the writing, despite it being set predominantly in a lower register than the usual ‘singing’ register of the instrument. The contour of the line is arching and fluid, and there are defined phrasing junctures that could indicate breathing points in a vocal context, such as in the middle of bars 4 and 8. In the last two bars of this section the main melodic motif of the opening theme is introduced, and the articulation that it is given lends the figure a spoken quality, more so than in the soprano line where the marked phrasing is longer.

The greatest challenge I faced in learning and performing this piece was finding a good balance between the various roles employed; this is not uncommon for ‘middle voices’ in chamber music, such as the viola or second violin in string quartets which are often required to switch between supporting and leading roles in quick succession. Given the instrumentation of the piece, I had both to work in conjunction with the piano to support the voice, and to match the vocal timbre when providing a counter-melody or the main melodic line of the music. I attempted to achieve this by listening for and employing elements of the singer’s sound such as the width and speed of vibrato, connections between notes (including portamento) and the relative strength and quality of tone appropriate
to the musical context. Most of this occurred sub-consciously in the rehearsal process, and was aided by my colleagues’ considerable experience and skill as chamber musicians.

A less common context in which the cello is paired with the voice is when both activities are undertaken by the one performer, i.e. singing and playing at the same time. While it is common for singers to accompany themselves with the piano or guitar (or a similar strummed instrument) in popular and folk styles, ‘singing and playing’ is very rarely found in the Western classical music sphere using orchestral stringed instruments; in the case of the cello, repertoire such as this did not exist until well into the second half of the 20th century.

British musician Simon Wallfisch is a performer who has found a niche in this mode of performance. In addition to his career as a baritone, Wallfisch has used his high-level cello skills to create concert programs which include vocal duets in which he sings one part and plays the other. These are taken from a range of sources, ranging from works by Mozart and Mercadante to the musicals of Stephen Sondheim, and are arranged by Wallfisch to enable performance in this altered form. As Wallfisch states when talking about negotiating some of the trickier coordination aspects of this medium:

I do cheat a lot. I might slightly alter a rhythm that – if there’s an awkward shift, for instance ... that I need to concentrate on, I make sure I get the shift, find the note and then put the voice in, even if in the piece they’re supposed to happen at the same time. (Simon Wallfisch interview, p.163, para.2)

Wallfisch is uncompromising, however, in his preparation and execution of this combined technique:

I really practise, I don’t just stand up and do it. I practise a lot ...
[S]ometimes [there are] certain phrases when you have different rhythms or you’re crossing yourself, the voice and the cello, I have to really do it note by note, really, really slowly to just work it out. (Simon Wallfisch interview, p.159, para.1)
He attributes his success in combining the two to having a strong technique in each discipline (Simon Wallfisch interview, p.160, para.9 & p.161, para.5-6), meaning both sets of skills can be executed confidently without too much conscious thought. This allows his energy and focus to be invested in other areas such as coordination, musicianship and stagecraft.

He also feels that the process of singing and playing together improves the separate disciplines:

I think that I sing better when I’m playing the cello ... [Y]ou switch off the inner policeman that sometimes you have when you’re singing. You can find yourself sometimes thinking very technically. It happens sometimes that I feel more free when I’m actually – when I’m concentrating on the cello, I sing better, and vice versa. (Simon Wallfisch interview, p.158, para.4&6)

My experience of this mode of performance, and part of the stimulus for entering into this research, was learning the second movement, titled ‘Pianissimo’, from Latvian composer Pēteris Vasks’ composition *Grāmata čellam* (or ‘The Book’) for solo ‘cello. In addition to other extended techniques, there are passages in this movement in which the performer is required to play a melody over an open-string drone while at the same time singing or whistling a counter-melody at a higher pitch (Fig. 3.4, rehearsal mark 12). For the most part, these lines travel in parallel at the interval of a 10th (producing the same harmonic effect as a string of consecutive 3rds) and thus there are no crossed parts and few awkward harmonic intervals between the cello and vocal lines to deal with. The resultant clear, simple and tonal texture, however, does call for very precise placement of pitch in both parts as well as a well-matched tone between the voice and the cello, and these elements provided me with significant challenges when learning this piece.
Coordination was a major factor in mastering these challenges and required very patient work to integrate the skills of each instrument into a functioning whole. Not only was it necessary to coordinate the movement of my left-hand fingers with the changing pitch of my voice, it was also necessary to incorporate factors influencing tone on the cello such as bow weight, position and speed as well as bow changes: despite phrasing lines being marked over entire phrases, to facilitate the tone I desired I found it necessary to break these phrases up into two or more bow lengths.

When singing and playing at the same time, I found it more difficult to maintain the correct pitch on the cello than with my voice. To address this, I made sure that the cello line was first absolutely secure technically and then I devoted more of my attention to it when incorporating both parts at once, leaving the vocal line as more of a colouring of the cello line than a discrete part of its own. Also, I spent much practice time making sure that each interval between the voice and cello was secure before inserting them into the longer phrase. I found that in the vocal part, the dipping down of pitch by a large interval mid-phrase was especially difficult, as the lower note seemed to sit in a different part of my voice to the high notes, and the transition between these two parts was difficult to control\(^2\) (for example, the falling interval D to G in the first phrase in Figure 3.4).

Finding a good balance between the parts was another significant challenge that affected the overall tone quality of the combined sounds. Initially, I found that

\(^2\) My singing of this part was entirely in a high falsetto and so was fairly tricky to control to begin with; there is an option in the music for males to whistle the vocal part, though this presents other challenges altogether.
my singing overpowered my cello tone which was problematic as, in this music, the vocal line is a secondary melodic part to the cello line, so the cello should theoretically lead the sound and be slightly stronger (or at least strong enough to project well) in the balance. Working on this took the form of a trial-and-error adjustment of dynamics, as my voice in that register has a limited capacity for producing low-volume sounds of consistent and good-quality tone. The cello line also became stronger as my confidence in left-hand pitch placement increased, and eventually, after much work, the two parts fell into a workable balance.

As I became more familiar with the piece, I found that I was thinking more about the bow in singing terms (such as breathing in preparation for a phrase and spinning out the breath through a phrase). This was evident not only in the sections where the cello and voice are used together, but also in the extended melodic passages for cello without voice. In both of these contexts, the performer plays an open-string drone note while the melody is played on a higher string and the change in bow direction to continue this drone in gaps between phrases can be treated as an in-breath to the following phrase. For example, in Figure 3.5 below, the second group of notes finishes on a down-bow with a three second gap before the start of the next phrase, which is also played on a down-bow. The bow direction for the drone can be changed immediately after the first group to an up-bow, producing as seamless a drone as possible while also allowing the up-bow to act as a preparatory intake of air in the music, ready for the ‘out-breath’ at the commencement of the new phrase.

![Figure 3.5: Excerpt from rehearsal mark 9 from the second movement Pianissimo of Vasks’ Grāmata čellam for solo violoncello](image)

In the singing-and-playing sections, the similarity between the sung lines and those played on the cello part informed the way in which I approached playing these melodies. Most importantly, my singing influenced the way I shaped the
phrases on the cello in terms of dynamics and tension and release. In Figure 3.4, the obvious points of stress in the phrase are the highest notes, with the dynamic building towards each climax. Looking at the phrase in a larger sense though, I shaped the line in the voice more towards the second climax than the first, in keeping with my use of breath within the phrase, and the cello part easily followed this shape. Also, the amount of decay when singing at the end of the phrase was quite pronounced (being at the end of the breath), and this same ‘phrasing away’ was mirrored in the cello part.

The partnership of the cello and the voice, be it in an orchestral, chamber music or ‘solo’ context, is a powerful way of integrating the elements discussed in Chapters 1 and 2 into performance practice. This highlights not only the versatility of the cello as a ‘singing’ instrument but also the benefit for cellists in contemplating aspects of the human voice.

**Conclusion**

Through reflecting on my practice as both a singer and a cellist, as well as by gaining insights from published literature and the interviews I conducted, I find that there are many ways in which elements of the human voice influence and inform my cello playing. These include technical aspects of singing and speaking such as the use of the breath, production of sound through phonation, enunciation of consonants and vowels, the connection of sounds (with portamento being a special case), tone colour through use of vibrato, evenness of tone throughout the range and the negotiation of different vocal registers. Drawing inspiration from these aspects and recognising their analogies or equivalences in string playing helps me to approach playing cello repertoire in a more singing/spoken way and thus increases my range of expression and communication through music.

Language, as an integral part of speech and song but not explicitly present in the playing of a musical instrument, is another element of the use of the human voice
that influences my practice as a cellist. This includes gaining a better
understanding of a composition through knowledge of the native language of the
composer (and in the case of improvisation, one’s own language) and employing
‘dummy’ lyrics in instrumental music as a tool for improving expression and
character. Allied with these concepts are the ideas of musical rhetoric and the
prosodic level of speech, or the ‘meaning behind the words’, which I find help me
approach the communicative elements of my repertoire more effectively.

These elements, both technical and non-technical, find a special use in the
preparation and performance of music involving both the cello and the voice
together. Examples of this are when the two are paired in an orchestral/vocal
scenario, in the more intimate setting of chamber music and when both are
presented by the same performer, i.e. singing and playing at the same time.
These contexts use the skills and knowledge I have gained in making my cello
playing match the voice more closely, and also help me gain a greater
understanding of the voice-cello connections through integration of the two
practices.

Though my research has focussed exclusively on the human voice and stringed
instrument practice and on selected repertoire, further insights could be gained
by research of a similar nature concentrating on the practice of other stringed or
non-stringed instruments, thus expanding the field of knowledge in this area.
The knowledge and insights I have gained through this research regarding the
use of the human voice and how it can be applied in my instrumental practice
have been invaluable and will continue to influence and inform my cello playing
into the future.
Reference List

Written references


Score references


**Audio references**


**Images used**

Appendix A – Sample interview statement

This appendix contains a sample version of the statement that was given to the interview participants. This is the last revision of the statement and was used in the interview with Simon Wallfisch on the 7th & 8th of August, 2014.

Statement about Masters topic

From many interactions with musicians and non-musicians alike, I have found there to be a commonly held view that the sound of the cello and the sound of the human (singing) voice are, at the very least, similar – in fact, I have often heard the phrase ‘the cello is the closest [classical] instrument to the human voice’. Whether this is objectively true or not, I do believe that there exists a close
relationship between the two, both in the sound-world they inhabit and in the way that composers have chosen to write for them over the centuries.

In terms of pitch, the cello spans the entire male voice range, from bass right through to high tenor (and beyond), though the area in which the cello projects easiest and ‘sings’ best, and which I believe composers have often used for lyric purposes, is roughly the range of the tenor ‘head voice’ (E above middle C through to C an octave above middle C); as I am a tenor myself, perhaps I feel more strongly the connection between the “singing” registers of the two.

Looking at technique, there are quite a number of analogies between singing and bowed string-playing. Most obvious is the fluency of pitch (i.e. no keys or frets to produce distinct tones) which is common to both, but also ideas such as the bow relating to a singer’s breath, preparation for sound production and the actual physicality of making the sound, different bow strokes corresponding to aspects of diction (consonants) and glottal stopping and elements of the quality of tone such as vibrato, tone colour (including vowel differentiation?) and moving between tones (‘shifting’ on the cello), especially portamento. The physical proximity of the cello to the body when playing and the outward projection of sound from the body of the instrument are also in line with the ‘singing’ idea.

I feel that composers have made use of the ‘singing’ qualities of the cello, especially from the 19th century onwards, setting lyrical and often heartfelt melodies for the cello, especially in orchestral forms such as the symphony and in opera but also in chamber music and solo repertoire. The cello also has a close relationship with the voice in pre-19th century music, accompanying vocal lines as a continuo instrument in recitative and other vocal forms.

Perhaps a ‘singing’ nature is common to all pitched instruments, in a part of their range at least, however given the aspects discussed above I believe that the sound of the cello and the voice are closely related and that this is particularly pertinent to my music-making, given my practice as both a singer and cellist.

Given this relationship, I am interested in how aspects of singing can be used in the preparation, interpretation and performance of cello music (and, to a lesser
extent, the reverse), and also how the two have been used together (either by the same performer or in partnership).

Appendix B – David Dolan interview

This appendix contains a transcript of the interview conducted with David Dolan on the 4th of May, 2014 at the South Melbourne Town Hall. The specific questions prepared for this interview included:

- What is your response to my statement on the relationship between the cello and the human voice? Do you believe that there is a particularly strong relationship between the two “instruments”? Comment.

- In your view, does knowledge and use of the human voice, especially in the form of singing, aid instrumental technique/performance/development? Specifically regarding bowed string instruments and the cello? If so, how?
• What about vice-versa, i.e. instrumental knowledge/experience aiding vocal practice?

• In the field of improvising/extemporising, your pedagogic technique incorporates vocalisation in the form of musical (singing/humming) and non-musical (speaking/non-pitched vocal noises) sounds, as well as mixed singing and playing. In what ways do these approaches aid musical development and performance practice? Is the use of the human voice an integral part in preparing for improvised instrumental performance?

• In your teaching work, have students ever encountered difficulty singing and playing at the same time? If so, what has been your approach to assisting those students?

• To what extent does knowledge and experience of the human voice (i.e. singing) influence and inform your own practice as a performing musician?

Start transcript

Facilitator: Right, thank you very much for agreeing to speak with me. I’ve just given you a short statement on my - some of my views on the thesis topic and also the questions which I’m hoping to address in my research. I was just wondering what your response to those were.

Interviewee: My first response would be - is that I find it fascinating to take perhaps a step further into the level of the speech which is not the semantic one but the prosodic level of the speech.

Facilitator: What do you mean by that?

Interviewee: I mean by that, the music of the speech or what linguists call ‘intonation’, which is the level on which we convey what we really mean very often, especially when it is in conflict with what we say. In a social situation where you are supposed to say ‘How nice to meet you’ even if the person you’re saying it to is someone you were hoping not to see, it is often possible
to feel what you really feel through, not what you say because you will say what's supposed to be said, but through the music of the speech at that moment, through the intonation which is everything to do with time, durations, everything to do with timing, eventually rhythm, to do with pitch, contour, with loudness and with timbre, the colour of the voice. I think for me the cello evokes the association of the speaking voice at that level as well, not only the singing, but the speaking.

**Facilitator:** Sure. I guess it does also - I mean, as well as what I've said there about the kind of - the more projecting area being higher up on the instrument, lower down there is a - what would - the tone is what would reside in the normal speaking register of a male voice as well, I guess that's true. I hadn't really thought about that.

**Interviewee:** Yes, but that's what I mean, because it resembles the range of the human speaking voice and on the upper register, not only male, it can also correspond to the F0, to the fundamental frequency of the female speaking voice. I think for me, that's where it clicks with instinctive associations of the - sometimes the voice of the truth of the speaking voice, which is a whole kingdom I think, of - sometimes hidden because it is not what we are formally saying or - it's what's in between the words, what poets often refer to as between the words.

**Facilitator:** Yes, that's true.

**Interviewee:** If you hear *Intimate Letters* of Janacek, the quartet - the cello, for me, often speaks just that. So this is, for me, it has always been, regardless of even before I knew about your research, it was what made the cello sound so powerful for me. The person who creates for many the modern linguistics, Ferdinand de Saussure, talks about a paralinguistic which is that, which is the rules of the voice, of the intonation in defining the meaning within a phrase. You can say, responding to someone asking you 'How are you?', 'I'm very well' and it's clear that you mean it or you can say 'I'm very well' but actually saying I am not very well at all.

**Facilitator:** Simply by the intonation and the inflection of the way you say it.

**Interviewee:** Yes, yes. The music of the 'I'm very well' [high, affected voice], well, it wouldn't take a very rare sensitivity to feel that maybe something is not running very smoothly.

**Facilitator:** Yes, yes. So given that, how would you apply that to instrumental practice then?
Interviewee: Well, frankly I can't remember if we've done it, and if we have, to what extent, but the - you can help me, did we work with you when you were here at ANAM on speaking musical lines within...

Facilitator: I think we did in a chamber music setting and I found that really a revelation. In that setting, I thought it really opened up the...

Interviewee: That's my answer really to your question, 'How does it apply?', but also on solo. If - I don't know, it comes to my mind now, you think of the opening of the third (Bach) Cello Suite in C major, this cascade of scales going from the top down which could be a very triumphant and positive and optimistic [vocalises melodic shape] or the opposite, breaking down the last round of losing hope [vocalises melodic shape] which would fit perhaps more naturally what we associate minor tonality with.

You could - and that's the answer to your question, to your last question, which is 'What I do with myself too when I work on a musical piece?'. I try to speak it along the lines of the given structure harmonically, as you know, in terms of searching for gesture of tension/release but also melodical, the actual contour of the melodic line itself, whatever it says.

Facilitator: What do you think of the practice of putting words to music that doesn't have words? I've come across this in my education.

Interviewee: Putting actual words into motives?

Facilitator: Yes.

Interviewee: I find it a very helpful tool if it doesn’t take dominance of itself, so to speak. It can be a very powerful inspiration tool that launches you within a mode of expressing gestures in the sense that the Baroque concept used gestures, speaking on the affect there. Schnabel used to work like that all the time. His op. 31 Sonata starting [plays piano]. He apparently said to all his students to dramatise with a ‘Si papa’ [plays piano and speaks] ‘Si papa, si papa’. This kind of obedient mood and mode and developed a story from that.

I tend to do when I do apply this, asking myself and also my students to come with at least two, preferably more than three, different versions so that you don’t get stuck with one set of associations, but make the motive speak rhythmically through different possible...

Facilitator: I guess what you're looking for is a kind of flexibility in understanding and...
Interviewee: Yes.

Facilitator: ... a kind of discovery about the music, is that right?

Interviewee: Yes, absolutely. Along the lines of getting a gesture in motion, and for that the use of words, but within a certain emotional context and dramatic meaning, I find it very useful and I do do that. Again, I think it's important not to get locked in one only route.

Facilitator: Sure, sure. Yes, yes. I'm interested if vocal elements influence our playing or our instrumental practice, do you think there are elements of instrumental practice that would aid vocal practice?

Interviewee: That's an interesting question. Let me think about that. I am thinking out loud here, I guess it could be the sense of tension/release, gestures of tension/release that I would take from working on it instrumentally and then translating it to the voice. I have a feeling that it is the other way around that would connect me with a more spontaneous and authentic expression of a motive or expressive potential.

Facilitator: Do you think there’s value in - say if you were a singer, looking for - exploring a song, to have that kind of - maybe take a step back from the music by playing it and being able to - because in my experience, when I sing it’s very much a whole kind of body, whole kind of being experience as the instrument is kind of yourself. So do you think there might be value in just taking one step back and gaining a different perspective on what you're doing by playing?

Interviewee: By ...

Facilitator: By - in whatever instrument you...

Interviewee: By playing the melodic line on the instrument instead of singing?

Facilitator: Yes.

Interviewee: Yes. I guess so. I am not a singer unfortunately. I wish I was but yes, because it would give you a more purely melodical way of searching. Although I tell all my students and myself to look for the melodic line through singing first of all. Especially us pianists who are playing what can too easily become a percussive instrument, to look for a melodic line by singing it. I guess if I was able to play a string or wind instrument, yes I would perhaps look for possibilities of phrasing and interpreting the line through playing it as well, yes.
Facilitator: I have to say, I’ve found the other way - vocalising a line for instrumental playing a lot more useful [laughs] in my practice.

Interviewee: Yes, me too. I never worked with the other way around the journey.

Facilitator: Just out of interest, you work with actors as well, is that right?

Interviewee: Yes.

Facilitator: So do you ever use music with the speech that they have to...?

Interviewee: Yes, very much so. We put - part of the course in London at the Guildhall is that you put actors and musicians together and we use both departures point - as a departure point and as a leading factor, but part of the work is that the actors actually have to sculpt their phrasing into a musical phrase, which is a way for them to practise the arrival to a certain goal point in time in the future in a very precise way. At the end of the eight, or if it’s asymmetrical, five or seven bars phrase and reach the end of the phrase exactly there. That’s one dimension.

The other dimension is of course the emotional dimension and if an actor has to improvise to such a phrase... [plays exuberant piano music] it is one thing, or if an actor has to improvise to... [plays mournful piano music] it’s another. Actors find it very powerful, it’s surprising perhaps to see how often they are unaware of the full scale of the emotional power that music has on the content and immediately timbre and the energy of the voice and the - all the parameters of their use of the voice changes dramatically.

For them, it’s often a very powerful moment of discovering what’s happening with their own use of the voice as actors. There’s a huge influence of the musical parameters on their work.

Facilitator: I just remembered I’ve heard music by a Brisbane-based composer I think, who takes people’s speech contours and makes melodic lines out of them and makes music out of ordinary speech, which is really fascinating and I think could be quite interesting in that kind of development too.

Interviewee: Yes, it’s easy and it can be also very funny.

Facilitator: Yes, yes.

Interviewee: French people from the French side of Switzerland and French people from France use a very - although they speak the same language, their ‘singing’ of the speech is very
different and it can jump octaves very easily, very – [speaks in caricature] ‘Bonjour!’ and so yes it’s a free source of melodic contours of course.

Facilitator: I want to move on to the work that we’ve done in improvising and extemporising now and particularly the kind of vocal techniques that you use in that. In my experience the - what you do when you teach, or at least part of what you do, uses musical vocal sounds, singing or humming, and also as you said before, non-musical sounds, the speaking, the - those kinds of sounds, as well as singing and playing at the same time.

I wonder what your view is on how these things, these aspects, kind of influence musical expression, technical development, interpretation, all of those kinds of aspects.

Interviewee: I wouldn’t put them in the same basket. You mentioned technical development as well and Schnabel was talking about technique as having to become the slave of your musical and expressive intentions and in that respect I think it influences it a lot. As you may remember, I am not sure exactly how far we went in this integration of vocalising in musical work, but the aim of it is to enhance one’s expressive palette.

Often we musicians with our instruments and behind - being behind the instrument, we are sometimes less comfortable than actors in going all the way without any filters in expressing a certain gesture. I found that when you invite people and when they really take your invitation fully, because at first, maybe you remember it from yourself as well, we are a bit shy or...

Facilitator: It’s pretty intimidating.

Interviewee: Yes, it is, which is why throwing musicians to the lion’s cage of working with the actors is a very liberating in one boom, one big bang act. Doing exactly that, because when you vocalise fully without - in an extrovert way, it’s either everything or nothing. You either go for it or nothing comes out which is the technique I am using, if you wish, or that’s what brought me to really include it so much in the way I’m working, in order to gain the contact with the full last power of the expressive gesture.

Then you refine it, or not, usually you do refine it of course, according to the context of the musical phrase, the harmony, the melodical shape, the other players’ parts when we play not a solo thing, according to what is needed. To be able to connect authentically and be with, in real time, an expressive
gesture is crucial, otherwise we risk playing just empty notes unconnected to saying something. That's why I find it a crucial part of working.

With the cello, I find it - really because of this proximity of range and timbre and I guess that's not the only thing, I don't know what else, mysteries on this proximity with the human range of expression, especially when you are out of the civilised manner of saying what is politically and socially and polite-ically correct. When you are pushed emotionally, when you are unfiltered or uncensored, I find it crucial to connect with that when you are searching for a musical interpretation.

Facilitator: Just out of interest, have you noticed in your work with cellists any particular affinity or any particular kind of - have you noticed that there is any - I don’t know, I guess a particular kind of link there or not? Or does it kind of apply equally to all instruments?

Interviewee: I think it is more to do with the individual and we all have our baggage of filters and inhibitions and - but yes, there is something a bit unfair, if you wish, when cellists get to let go of inhibitions and filters, they find themselves more closely associated with the human voice in fully expressive mode than piccolo players, yes.

Or even for us, I am a pianist and it is more of a challenge for me I think, for us pianists, to reach that point in one melodical line unsupported, unaccompanied, than it is for you as a cellist. In that respect, you are luckier, in that respect. Yes, there is something that puts you nearer the naked pure authentic vocal expression. Yes.

Facilitator: I also found in the work that we have done that when we've done improvisation in groups where we've had to do a bass, provide a bass line or provide a melody and swap between the two, or something that's in between the two, I think being - I think a cellist, just in terms of the range of timbres and the range of roles that we have to play within the music that we commonly are confronted with. I notice especially working with the upper string players, they were very, very much less comfortable with playing bass lines, bass harmonies but I think as cellists we do often take this - well, we often take the harmonic - the bass role, but plenty of the time we also take the melodic role too. So there's kind of a degree of flexibility there.

Interviewee: Yes. I think this is mainly to do with the fact that we are not used to this type of work, that we grew up, we were trained,
like most of us, the usual way: just play what is on the page as fast and clean and...

Facilitator: Accurately.

Interviewee: Yes, it’s ‘Just do what’s on the page and go home’, but you know it’s worth remembering that that’s a very modern disease, I would say. The tradition of ‘partimento’, which (was) taught for hundreds of years really, it’s entirely unpractised but it was known and respected throughout Europe, of teaching every aspect of music-making through what is derived from the bass and from the realisation of harmonic possibilities, was the way music was - tonal music, European tonal music was taught for many, many, many decades.

It’s worth remembering that it’s a relatively recent development that went into this specialisation of just pure technical speed and clean-ness, disconnected from context.

Facilitator: Yes. In your work with students singing and playing, have you ever come across students who have significant difficulties in doing it?

Interviewee: Yes.

Facilitator: How have you approached helping and assisting them to kind of overcome that?

Interviewee: I think that for most of us, me included when I started at first to push myself in that direction, the difficulty is the fact that we are not only not used to doing it but we are used not to doing it. We are used not to expose ourselves and when you let go of a vocal gesture, you expose yourself, especially if there isn’t anything that you have to sight-read from the page. It’s a sense of taking risks and I think that is the main bulk of the difficulty.

Facilitator: So it’s bringing people kind of gently out of their comfort zone, do you think?

Interviewee: Yes, yes, yes, and it’s not a gentle thing, to go out of one’s comfort zone, especially that we are used to being very fanatical about staying in our comfort zone only. The difficulty isn’t really much more than that, but it’s huge, it’s huge. It’s emotionally being not only willing and kind of accepting, but wanting to go there and before there is this full will and full wish and I would say need to go there, one can’t really exploit or benefit fully from what that is.

Once this step is taken, I think the benefits are huge and it’s a genuine opener, and an opener that reaches deep inside. You
could be a study case, I don’t know if I can risk asking you whether you would confirm or disconfirm what I’ve just said, because you went through this process.

Facilitator: Yes. I - certainly I don’t think - I think I could have gone further...

Interviewee: We all could.

Facilitator: ... in the study that I’ve done with you, and with the cellist, who's the other cellist who’s come here?

Interviewee: Nick Bochner.

Facilitator: Nick Bochner, that’s right, in the work that we’ve done, but certainly I've found that - yes, it got a lot easier and I found that I was much more prepared to go - to stray from my conventional, even within the improvising framework, to stray from the conventional kind of path that I’d taken, eventually, but it’s just - yes, it’s a comfort thing, isn’t it?

Interviewee: I’m glad that this branch of the conversation took place because there isn’t a yes or no phase, like zero or one. You can go deeper and deeper in that direction. So it’s not that - if you haven’t gone to level X of that, you haven’t done it, it’s a journey.

Facilitator: True, true. Yes.

Interviewee: I think that there is a moment of breaking the ice, of daring to put both feet and the whole body in the water and just go for it. Then I think the benefits do come.

Facilitator: Yes. Finally I was interested in how you as a performer, how you - in preparing pieces for performance and also in the practice of performance, how - well, if and how you use the vocalisation of music, - the vocal elements of music in what you - in how you perform.

Interviewee: Very much along the lines of what I was pushing you guys to do when you took part in the classes. With my frog voice I shout or speak or - between sing-and-speak lines, while at the piano I play exactly what I asked you to do, the harmonic reductions, not the full text, so that there is a full space and room for the speaking line to take place.

I play the harmonic reduction and then open the harmonic reduction according to what I want to emphasise. Then translate it to the actual text I am preparing of whatever I am preparing for performance, which is the hard part, how to go down from paradise to earth and to actually put it within the notes of the score, and that’s hard work.
Facilitator: Do you think - I well imagine that that is hard work - do you think that given the parameters though, within a set score, there’s almost - there’s some kind of - parameters usually - well can often create a kind of fertile environment for creation as well, do you find that? Do you...

Interviewee: Yes, I think that the score is a structure given within which you not only can but have to find your freedom of gestures, otherwise you will just play notes and it will be without hope. So it’s this tension between the given structure and what’s written in the rock, what’s unchangeable, and the spontaneous and having to be created each time from new otherwise the magic will not happen.

Facilitator: Yes, a bit like what you were saying earlier about things happening between the words.

Interviewee: Yes.

Facilitator: It’s kind of between the words.

Interviewee: Precisely. Precisely. This parallel or ‘underworld’ linguistics is the interpretation of emotion. In between and through the notes and - which are supposed to be, within the same structure and the same given notes, different each time. Otherwise, there is a problem.

Facilitator: Yes. Given that we don’t have a huge amount of time left, just one more question that occurred to me, have you - working with chamber music ensembles, have you ever worked with groups of mixed vocal/instrumental...

Interviewee: Yes.

Facilitator: How have you approached that and how have you worked with those groups?

Interviewee: Well, by asking the instrumentalists to speak-sing together with the singer. Then we more often than not had to go through this point of dealing with abandoning the comfort zone of the instrumentalists. So there was this part of the journey to do and we did, and then it went on usually quite happily but there was always this moment of awkwardness.

Facilitator: I guess, yes, being in the presence of someone who’s trained to use their voice, there would be some kind of intimidation.

Interviewee: That is what - the answer to that was that the instrumentalists were more speaking than singing.

Facilitator: Sure, yes. Did you also make the singer do that?
Interviewee: Speak, yes. Not only that but when I worked with lieder duos, voice and piano, I - not often, always - ask the singer to stop singing and to speak, at first with the text of the song or the lied and then with nonsense syllables but to exactly the same harmonic phrases of the text.

So it’s going to the other side of the bridge, along the same lines.

Facilitator: I think we’re going to have to wrap it up but thank you so much for agreeing to speak with me. I really appreciate it.

Interviewee: Pleasure. I’d love to see the way it evolves.

Facilitator: Yes. Well, I’ll be sending you on what I’ve - what I come up with.

Interviewee: Great. Good luck. Good luck, yes it sounds fascinating.

End transcript

Appendix C – Howard Penny interview

This appendix contains a transcript of the interview conducted with Howard Penny on the 14th of May, 2014 at the South Melbourne Town Hall. The specific questions prepared for this interview included:

- In your view, does knowledge and use of the human voice, especially in the form of singing, aid instrumental technique/development/performance? Specifically regarding bowed string instruments and the cello? If so, how?
• What about vice-versa, i.e. instrumental knowledge/experience aiding vocal practice?

• In your opinion, which aspects of cello technique and approaches to cello playing are similar to approaches to vocalising/vocal technique? What are the practical applications of these similarities?

• Given your extensive knowledge and experience of cello repertoire in all contexts, how would you say aspects of the voice and vocalising have played a role in music for the cello throughout its history? Has there been a strong or specific link between the two?

• What has been your experience of the role of the cello in voice-focussed genres such as opera and oratorio? Have you found your approach to the cello parts influenced by the vocal material in these works? What is the relationship between the two?

• In your teaching work, do you use aspects of the voice and vocalisation as a tool for education? Are there any specific areas of repertoire that this is particularly pertinent to? How do you go about implementing these pedagogical ideas/techniques? What is your view on the use of phonetic sounds (words or even individual syllables) to aid phrasing, etc?

• To what extent does knowledge and experience of the human voice (i.e. singing) influence and inform your own practice as a performing musician? Practically speaking, how does this affect your preparation and performance of cello music?

• From your contact with vocalists and composers, are there any experiences or ideas that you have picked up in this area that have influenced your approach to practice/performance on the cello?
Facilitator: So first of all, thank you very much for agreeing to be part of this interview.

Interviewee: Pleasure.

Facilitator: I feel like you have a fairly good knowledge of what I'm going to be - what I'm aiming to research anyway so I won't bother going through that. Can I start with your views on the human voice and instrumental music in general: how does a knowledge of the human voice aid instrumental technique, instrumental development and performance?

Interviewee: Yes, all of those, although they're all quite large chapters. The - I mean music has always been from - its origins are singing and dancing basically. Singing almost always implies a text, a specific text. So the musical figures have derived both from physical movement figures, as in dance, and also from musical figures - from rhetorical figures, as in figures of speech. So I'm convinced that music functions very much as a language with all the intrinsic building blocks that a language has as well. So I'm - that musical utterances have grammar, that they have syntax, that they have the possibilities of inflection which is what interpretation is then all about. That they - that's on the broader sense.

Then the - that individual words, for example, whether we take an individual note as being a syllable and how the syllables are joined together to produce words that we - sorry let me start that again. I'm trying to put too much in one sentence. So grammar, syntax and structure which has implications then for rhythm as well. That true rhythm I believe is - has to do with forces of gravity and nature and things like that, but also with the rhythms of speech, with the natural inflections and the natural emphasis and release of speech. So then on a more micro level I believe that we have - on an instrumental level we have the possibilities to produce consonants and vowels and varied consonants and varied vowels as well: straight vowels, diphthongs, hard consonants, soft consonants, no consonants. So I'm constantly thinking both in musical and instrumental terms in terms of speech.

Facilitator: With - the consonants I find to be a more easily identifiable transference to instrumental music, especially to string music, but vowels I'm interested in. It's something that I've thought about and I'm interested in how one would produce different vowels, or approach it in that way, sound on a...
Interviewee: Okay, well I can see a couple of possibilities for that. There are vowels in every - well in most languages anyway. Let’s just take European languages, the ones I’m familiar with that - if we’re talking about straight vowels now, just pure vowels if you like, that correspond to low overtones and ones that correspond to high overtones. So O and E for example, and that would be something that one could easily reproduce or use as an inspiration for variation on an instrument as well, that’s one possibility.

Open and closed vowels, nasal vowels like in French or - but then equally as interesting and, well frankly I find even more interesting, to keep - for me I always question what makes a performance or a player's playing - what it makes it alive? For me it’s generally about - and not just about beauty of tone but about flexibility. So for me a note rarely goes from ‘there’ to ‘there’ in a straight line. It would be an exception or an expression of something almost inhuman, so therefore the vowel corollary of that are diphthongs like ‘ai’, ‘ou’, ‘oi’, all those things. So I’d be thinking in terms of those when I’m shaping a note, for example.

Facilitator: Okay, so in terms of the actual – I’ll get to that a bit later actually. Do you think that the voice - do you think that stringed instruments in particular have a close relation with the voice compared with other instruments?

Interviewee: Well, I suppose the most direct - the instruments with the most direct connection simply because of breath would be wind instruments and/or brass instruments. But I feel that we’re able to produce at least as many speech-like characteristics on a string instrument as a wind instrument, if not more.

Facilitator: And narrowing it in a bit further I guess, the cello particularly: is there a - do you believe that there is a correlation in the string instrument family with the cello and the voice particularly or do you believe that there can be vocal links made with each of the instruments and...

Interviewee: Oh, no question. The natural thing - the reason that the cello is often associated with the human voice is simply because of our natural range. Our easy singing range is the easy singing range of a tenor or an alto or potentially soprano or even bass. We cover all bases, yeah.

Facilitator: What about the other way around? Do you think that instrumental knowledge and techniques could influence vocal music and vocal approaches?

Interviewee: Yes.
Facilitator: Yeah? In what way?

Interviewee: So I - well actually now I'm just trying to think but I - my immediate reaction was going to be, because I have worked with an awful lot of singers and singers very often get caught up in the process of singing rather than of speaking. Especially if they're speaking a text, which is more often the case, I can find that quite annoying when people are overproducing vowels and ignoring natural speech rhythms in, say, something like a recitative, I find it very annoying. The emphasis generally speaking is on producing a singer-ish sound or singer-like sound, often at the expense of the language frankly. So - but that's not actually an answer to your question, but an observation nonetheless.

Facilitator: It's linked, yeah, that's for sure.

Interviewee: But in terms of - yes, I think what singers - let me think, what could singers specifically take - from string instruments now we're talking, or specifically from the cello?

Facilitator: I guess string instruments, yeah. Well, I guess non-vocal instruments. It's - I believe that vocalising is quite a different method of music making than something that's external or that's - so I wonder if there's something of that external quality that could inform or could...

Interviewee: Oh, external in the sense that it's not actually your body doing it?

Facilitator: Yeah.

Interviewee: Right, that there's another piece of hardware involved. Potentially, yes, I could imagine that a range - that the range of expressive elements whether they are extremes of consonants or whether they're, for example, length of line as opposed to - because we're not hampered by breath, you know.

Facilitator: Exactly, yeah.

Interviewee: Dynamic also, because, for example, I think a - we are able to play incredibly softly and that could, for example, be an inspiration for a singer to explore the extremes of their technique, possibly.

Facilitator: So like timbral kind of inspiration.

Interviewee: Our - whether we're close to the bridge or further from the bridge, whether we have - we're up against it with lots of high overtones or whether we're more flautando or something like that. Corresponding to breathiness in the sound, I mean I
could imagine that we could - that an instrumentalist is more easily able to operate at the extremes than a singer and so therefore perhaps a singer could be inspired by the potential range, just off the top of my head.

Facilitator: My next question is about what you were saying before about the ways in which the aspects of vocalising and using the voice would be transferred to the cello in kind of technical terms. Would you care to elaborate on that?

Interviewee: On the actual nuts and bolts of reproducing vocal speech-like elements on the instrument?

Facilitator: Yeah.

Interviewee: Absolutely, I think they are our basic vocabulary. The conventional way to look at - to break down technique on a string instrument is to - and there’s nothing wrong with it - is to examine and practise mechanisms. For example a spiccato or a sautille or particular types of – no, not types of shifts but shifting, clean shifting but I’m talking specifically in the right hand actually. So I think we can - just as no two consonants or vowels in any one word or in any one situation are going to be similar, so lengths and articulations of notes are unlikely to be similar.

I mean it’s a general aesthetic principle that equality is not beautiful because it is not natural. Nothing in nature is equal and so equality is the exception rather than the rule. We practise even mechanisms to clean up our mechanical act, as it were, but then the actual - what we’re aiming for is not that, but what we’re aiming for is an infinite range of varieties of a clean mechanism if you like. So the - and then we can immediately draw inspiration from spoken or sung texts for variety, for true expression because syllabic reproduction of music is as uninteresting as syllabic reproduction of a text, whether it’s sung or spoken.

So then with - two elements that I think singers generally think about potentially more than - or three elements actually that singers generally think about more closely, or are more instinctively involved with than instrumentalists, are vibrato: how and when it’s applied; how it supports a vowel; how it can transform a note; how it can shift character either within a note or within a phrase. With shifting: going from one note to another and that’s - I think instrumentalists would do well to listen to really good vocal shifting, because for example shifting is often taught - we need to be able to do it cleanly, we need to be able to do it quickly as well.
But then if we're making a vocal connection, how do we do that? What part of the shift is beautiful to hear and what part of the shift is not beautiful to hear? Frankly, I think one will find that a bad singer you'll hear the beginning of the shift or of the connection and less of the arrival. A beautiful shift more often than not is less of the beginning and more of the end, but then it's a matter of timing: how much of the shift, and what part of the shift and when, do we actually hear? That's directly then correspondable to, for example, if we're shifting within a bow, how do we release pressure? Do we have the same consistent bow, for want of a better word, pressure throughout the shift?

Unlikely I would think if we want it to be beautiful. If you want a glissando, sure. If we're changing bow, for example, do we have the arrival note on the new bow or the old bow? I'm convinced - and it's often taught exactly the opposite in string schools, in string schools it's generally taught you shift on the old bow and that often, if it's not done well or if it's not done thoughtfully, can lead to what I would call "scooping" in bad singing basically where the...

Facilitator: Yeah, in my experience of singing lessons that I've taken there is an analogy to that, I think, of putting - if you've got two words with a consonant starting one word then you can - and if you've got a large shift or something, you can put the consonant on the previous note or on the new note and...

Interviewee: There you go.

Facilitator: ... it affects the quality and the timing of the shift, yeah.

Interviewee: Fantastic, there you go.

Facilitator: Vibrato. I mean, obviously a variety of vibrato and a wide range to draw upon is useful, but in terms of creating a beautiful vocal sound how would you go about - what would be your approach to...

Interviewee: Are we talking a sound without vibrato now, are we just talking the pure actual sound itself?

Facilitator: I guess I was probably more in this case thinking of the left hand.

Interviewee: No, but with vibrato or without?

Facilitator: With vibrato.

Interviewee: With vibrato. I'm not quite sure I understand the question.

Facilitator: Okay, so vibrato has speed and amplitude and...
Interviewee: That’s it basically, yeah.

Facilitator: ... different kind of qualities. Would you say that there’s an approach to implementing vibrato which would help to create a more singing kind of sound?

Interviewee: Right, okay, the - I think it’s always useful for an instrumentalist to sing their line, for example. Also to know things or to understand things about implicit timing as well, that’s the third thing that I was going to refer to that instrumentalists can learn from singers, where there’s a natural - the natural shaping and timing and creating space, for example, which is - we can often forget if we’re just going left to right. But in terms of actually producing a beautiful sound - I’ve lost my train of thought right now. I was – had something to say...

Facilitator: So the way...

Interviewee: I suppose the easiest or the most practical way to look at it is in the negatives, the bad habits that instrumentalists get into: not vibrating inconvenient notes; not vibrating first fingers - classic, for example; only vibrating notes that are convenient, if you like, whereas a singer would presumably have a more unimpeded feeling for what - for where and how vibrato should be deployed.

Facilitator: I think perhaps if singers have bad vibrato habits it’s a different kind of...

Interviewee: It’s a different...

Facilitator: Yeah, there’s different causes of different...

Interviewee: Absolutely, yeah.

Facilitator: ... areas in which that happens. Earlier you were talking about vowel production and I was wondering whether that’s a bow thing or a - obviously I would imagine it would be a bow thing...

Interviewee: Absolutely.

Facilitator: ... but is it a left-hand - would you say that there’s a left-hand element to it?

Interviewee: Well, for me vibrato generally only makes sense when it’s supporting - I think the main shaping and drama of any line, basically, is a right hand business and whatever the left hand does complements whatever the right hand is doing. It can support an accent very usefully, for example. It can also - it can make a note travel, for example, it can make sound travel. We can make sound travel with slightly increased bow speed
and we can also make sound travel with gradually increasing vibrato.

Facilitator: Developing the profile of the sound.

Interviewee: Yeah.

Facilitator: You were talking about bow position earlier, would that affect the vowel quality of the sound?

Interviewee: Hmm.

Facilitator: Sorry, the position of the bow on the string.

Interviewee: The position of the bow on the string. I suppose if we're looking for something that is contained and nasal, well, nasal in that - sometimes it's a useful thing. If we're looking for something that is bright and searing then yes, we would want to be close to the bridge and that would be an intense closed vowel, for example.

Facilitator: Or is it more of a - is it more thinking of the music and thinking of the line, or thinking of different parts of the line, in different vowel sounds to create a phrase? Is that - is it more of a mental thing which then perhaps doesn't produce a physically different kind of vowel but maybe helps to shape the line, is that...

Interviewee: Yeah, well - I think the analogy with vowels is a limited one. So I think what we're both getting at is how to get from one note to another, that each note has a beginning, a middle and an end and whether those beginnings and ends for example are open or closed. Then what happens in the middle, the journey of that note. That's something that is inherent in certain vowels and - but it's something that we can very consciously control when we're spinning a tune.

So that's why we need to use all the elements of technique at our disposal to do that, and for one note - I think a seamless legato is one of the hardest and most strive-worthy things to do on any instrument, including voice. Seamless legato involves passing from one note to another and how one note then - the energy of one note becomes the energy of the next. Looking for those joins or lack of joins or how we pass them is how we create an artistic phrase then, basically.

So then we're using obviously how we - obviously we need to control how we change bow so that we hear what we want to hear and not what - so that we're in control of what we - of the sound that's produced. But then contact point, bow speed, density around the string and varieties of that during a note and passing to the next note is what is going to actually
create not only a sense but a very real feeling for line and development of a narrative in a musical sense.

Facilitator: I want to move on now to the cello repertoire and how you feel that the voice - I mean, going on from what we were saying before - what you were saying before, sorry, about how the elements of speech and singing have influenced instrumental music. In particular, in cello repertoire, how do you feel that that has presented itself throughout the history of the instrument?

Interviewee: Well, the original function of the cello of course was the bass, as a bass line. So, limited, in a sense of - there were no sung cantabile lines. So the type of morphing from one syllable to another to create a long line is a later feature of the repertoire, of the music. However the art of creating a lively and alive bass line has very much to do with speech elements because what we're doing with the individual figures in a bass line is obviously supporting the harmonic drama. But then we use all the elements of articulation, articulation decay, bundling of syllables, timing, speech-inflected rhythm to show that a group of notes do belong together to form a figure rather than syllabic reproduction of notes.

Even with the simplest bass line we're using speech and rhetorical elements, so I suppose that it's there from the very, very beginning. Obviously as the cello then became a solo instrument and we got to play tunes then there's a much more immediate correlation to what one would normally associate with singing. The cello is in the blessed position of being able to do both.

Facilitator: I found - I recently did some work with baroque cello, which I hadn't done before, and I found that your proximity to the instrument in terms of actually being connected to it and not just it resting on you but you being connected to it was - I found that a really kind of great integrated experience and I feel like that - it was easier to be connected with the instrument. I'm not quite sure why I said that but something to do with like the...

Interviewee: Oh no, I absolutely agree. I think there's one less degree of remove between the instrument and yourself with gut strings and with baroque bow for very simple reasons. The – well, actually for a few reasons. Gut strings simply are a more human – well, I suppose they're animal - just a more human material and has in of itself a larger range of possible tone colours, just in and of it'self without you doing too much to it. The other thing is the use of the bow and the way a gut string speaks, or doesn’t speak, requires a much greater sensitivity for what's actually going on at the sounding point.
So one has to - you can get away with a lot with steel strings just by moving the thing backwards and forwards but with gut strings, unless you're truly producing a sound and conscious of how you are producing a particular sound or articulation or whatever, it's just going to bite back at you and it'll squeak and bump and do all those horrible things. So what it trains is - I feel I have much more of the sound in my hands. I'm forced to really - in my fingers I'm feeling gut and I'm feeling rosin rather than, well obviously steel, but rather than the stick I'm actually feeling the string and the sound is something that is actually malleable - a much more malleable thing.

I learnt an incredible amount from gut string playing and baroque bow playing that you can apply immediately to the modern set-up. That's not to say the modern set-up can't reproduce what we learn with gut but I think it's a fantastic school and it's more immediate, as you say.

Facilitator: Are there any pieces that you have encountered that you would say have particular links to the voice, that you've played, that you - are there any that come to mind?

Interviewee: I can't think of a piece that doesn't to be honest.

Facilitator: Right, okay, but none more than...

Interviewee: It's that simple, yeah.

Facilitator: ... others. No?

Interviewee: No, because I'm - I fervently believe that unless we're speaking coherently with the instrument we're not making sense and we're not communicating.

Facilitator: Okay. In genres such as opera and oratorio which you've had a lot of experience with what would you say about the role that - the role of the cello in that genre and the way it relates to the voice, the vocal lines and the...

Interviewee: Oh, well it depends on the period of opera, obviously. I mean, the earliest operas were the - a good deal of the drama was provided by an imaginative realisation of a continuo line, and Monteverdi operas - I did a Poppea ages ago that - and had great fun assembling - working out how I was going to support the drama because really there's not an awful lot else happening. But of course you have a complete arsenal of continuo instruments and possibilities to - variations of instrumentation, but simply on the instrument there are plenty of possibilities that we must employ to enliven that particular bass line.
We're almost providing as much scenery as the scene itself, the continuo line like that, and depending on your school of thought that can continue palpably into Mozart - the recitative of the great Mozart operas as well. I spent months, three months, just preparing a Giovanni, just - I was only - I was hired just to do the recitatives and I had fabulous singers. It was a big production in Vienna for the Mozarteum, Gerald Finley and all those kind of people, it was lovely, and a fantastic director.

They basically gave me carte blanche to - and a wonderful fortepianist, on hammerklavier. They said 'Go to town, do whatever you like' because we're just given harmonic skeletons basically by Mozart and obviously there are conventions that you need to know how to...

Facilitator: Work within or...

Interviewee: Well, exactly and - because the one thing you don't do is play what's written. You don't just play endless bars of the same note. You need to know when to strike, when to hold harmony, how to release it, when to comment. Then you're able to - and especially with opera with a libretto as good as Giovanni you can comment on not - you can support what a particular character is saying. But you can also represent what they’re actually thinking which can be at odds with what they’re saying. That’s the wonderful thing, you can give a totally different dramaturgical dimension to the character by how you realise the recitative line. So that’s why it's a lot of fun and requires a lot of imagination.

Facilitator: What about into the romantic era?

Interviewee: And 20th Century.

Interviewee: That’s when we get tunes, you know? I mean the classic thing: (in Tosca) Cavaradossi is in prison at the beginning of Act III and thinking of Tosca and that's when the cello plays Tosca’s tune and it's one of the most moving - so without him actually saying anything we’re representing his yearning for Tosca simply by playing that glorious cello chorale and then the big tune. It's used in all kinds of dramatic - some of the great cello solos are, in fact, in opera. The Frau ohne Schatten of Strauss, the Raven, the huge cadenza for the Raven it's - everything stops and then you start on the C string and then take a long time getting up to the heights of the cello, representing the character of the Raven and it’s part in the drama. Cello is a favourite instrument.
Facilitator: Yeah. It would just be speculation, but why would you say that composers have chosen to use this instrument?

Interviewee: It’s a natural range of every human voice that we have, easily, I think.

Facilitator: Sure, yeah okay.

Interviewee: Yeah.

Facilitator: And so it’s somehow kind of resonates with us in a particular way.

Interviewee: Absolutely, yeah.

Facilitator: I think you may have already answered this but do you find that - working in opera and oratorio do you - the way you play your cello part, is it influenced by what’s happening with the voice? I think you did kind of - you did say...

Interviewee: Oh look, there is nothing - there are few things for me more inspiring...

Facilitator: As in [unclear].

Interviewee: Yeah, few things more inspiring than working with good singers in whatever capacity. So I feed off that and hopefully some reciprocal influence as well.

Facilitator: Also chamber music with singers and...

Interviewee: Chamber music with singers, okay.

Facilitator: ... and also chamber music in general.

Interviewee: Chamber music in general, I can’t think of a piece of music by Mozart, for example, chamber music piece of Mozart, that isn’t opera in a very, very palpable way, for example, with various characters and changes of scene and interactions between the characters and yes, all the things that an opera has. So yes, I think it’s very useful to think in those terms as even for strictly or purely instrumental...

Facilitator: Instrumental music. What about chamber music with singers? Have you...

Interviewee: Yeah, I’ve done a bunch of stuff, yes.

Facilitator: How have you found that experience of working directly in that close...

Interviewee: That’s challenging. Well, it’s challenging as, in a sense I suppose, it is in opera as well but it’s more immediately obvious then how closely the instruments should match the
timbre of the voice and vice versa. When one’s working with chamber music it’s nice to have a singer who has a flexible voice and a wide range of - not just dynamic but of tonal inflection. That just makes for a lot more interesting music-making, so it’s a demanding thing for a singer.

Facilitator: Have you found that vocalists who have been instrumentalists, who have had an instrumental training, to be easier to work with?

Interviewee: Absolutely. First of all rhythm, I’ll be very honest, and a sense of what - if we’re doing rubato, what actually makes sense. Rhythm is often determined by harmony of course and having a proper sense of how that’s put together and the give and take and the breathing of the actual dramaturgical apparatus, how that actually determines then how a melodic line can coherently be produced.

Facilitator: And things like rubato employed and...

Interviewee: Yeah, exactly, so I think often singers and - by no means exclusively but often singers who have been instrumentalists, and especially good instrumentalists, have a much bigger picture. It's not just about their line but it's how everything fits together and...

Facilitator: Teaching - do you use aspects of vocalisation, vocal - apart from those elements of rhetoric and the speech elements that you mentioned before, do you have specific kind of techniques or tools that you use in the teaching room for students in a vocal kind of way?

Interviewee: I’m again not quite sure...

Facilitator: Entirely sure of the question?

Interviewee: Yeah exactly, I can see two elements of that. One addressing whether - I mean, I use specific exercises to develop a range of articulations, a range of and a sensitivity for how to join one note to another, for example. So in a sense it’s using instrumental building blocks with ultimately a vocal outcome. But then of course reciprocally, as I’ve said, I can’t think of a piece of music that doesn’t - that I wouldn’t think of in either rhetorical or vocal terms. So in the studio I’m always using those elements, it doesn’t matter what piece of repertoire we’re playing. Does that sort of answer the question?

Facilitator: Yes. Do you - I mean - are there - in your method of teaching do you - is there a - I guess in a more specific way is there - are there ways that you incorporate speech and singing? I mean, for instance, are there - if you are trying to explain a
certain phrasing or a certain passage with students would you use a vocalisation of that as an aid to...

Interviewee: Sure, absolutely, and I think the - our primary task as interpreters, instrumental interpreters is to define for ourselves and then recreate the implied text of any given piece of music. So I try to give students the instrumental tools to be able to have a variety of tools at their disposal to do that. But then also the curiosity, the intellectual curiosity and the artistic curiosity, to see instrumental music in those terms. So a two pronged approach. One the simplest ways of doing it, and I have done that and do do that, is to take pieces of music with a specific text and then play that and work out how to reproduce that text on the instrument. Just getting a feel, a technical feel for what we - with the hands what we’d normally be doing with the mouth.

Facilitator: In teaching that do you get the students to vocalise themselves?

Interviewee: No that’s - I generally don’t. I have no shame. Students are more - generally speaking my experience is they’re a bit embarrassed to do that, or I’ll do it with them. Or what I have done, what I did with the cello ensemble for example, was to take a - and I find that an incredibly useful exercise for both instrumental and ensemble playing of any type actually and it’s something with string groups of various sizes, is to take a motet, a Bruch motet or a Gesualdo motet were the two that we specifically took there, and to - especially something with a bit of counterpoint as well.

So learning what seems on the page to be vertical harmony, harmony, harmony, harmony is in fact interwoven figures, musical figures that correspond to a text, obviously, with - well, you know, a word has a certain number of syllables, the phrase ends with a comma and first of all to - how do we show that? I get them – absolutely, yes, we do speak that through. So we speak it through so that you can hear the counterpoint without pitch but - speaking it through in rhythm so you can actually hear the warp and the weft of the figures.

Facilitator: That reminds me of another thing that I was going to ask you about - Bach, where you’ve often got multiple voices happening at the one time, in terms of the way to approach that voicing-wise and separation of voices and timbres and things - how would you go about that?

Interviewee: I would absolutely follow voice for voice first of all.

Facilitator: But in terms of - in kind of cellistic terms, in string terms.
Interviewee: Ah, well I would work out what the implied text is. I mean the thing with any music before a certain date, probably around about Mahler where we get an awful lot of instructions, we're left to our - in a sense not only to our own devices but to our informed sensibilities to work out what the implied text is. Basically, on a very simple level, is: how do we bundle the notes together? What notes belong together and what notes - in other words what notes are bundled together to form - how the syllables are bundled together to form words? How the words relate to each other to form phrases? How the phrases form sentences and et cetera, et cetera in our musical text which is very often independent of the meter and of the bar line.

Facilitator: In this multi-voiced music often though, there are voices in different ranges and different pitch areas - on the cello how would you go about doing that? Would you, for instance, try to stick with one voice predominately on one string for a colour or...

Interviewee: Are we talking about like in the Bach suites or something where we have...

Facilitator: Yeah.

Interviewee: Well, the thing about the Bach suites is we don't have an awful lot of real counterpoint, we have a lot of implied counterpoint. Yes, we just simply can't play more than two notes at once and even the two notes at once playing is not nearly as complicated or developed as they are on the violin partitas and sonatas, fortunately [or] we'd break our fingers. But yes, we have to make sure that there is an understandable continuity of the implied voices. Even if a note - even if one note of a voice is placed here and we come and collect it again a bar-and-a-half later, something about that - the sonority and resonance of that must be related.

Facilitator: And the inter-relation of the voices in terms of the way that they communicate or comment on each other perhaps?

Interviewee: Yeah.

Facilitator: Is there a particular - I'm just thinking in kind of I guess more technical terms on the cello. Would you use different articulations for different voices? Would you - how would you kind of...

Interviewee: It depends what the...

Facilitator: Depends on the context I suppose.

Interviewee: ... voices are saying.
Facilitator: Sure.

Interviewee: If it’s the same text in a different context then we will ‘play/say’ the same text in a different context. If the texts are palpably different, if you’ve got a cantus firmus and an ornamental voice then yes, we’d be looking for different sonorities between the two voices and sure, something as crass as that.

Facilitator: Okay. Finally, I just wonder whether, from your contact with singers and composers, whether there are any ideas or experiences that you’ve picked up along the way that influenced your approach to this kind of area of music? In your work with singers and composers.

Interviewee: What has kind of prompted my thinking about all of this? Very specifically I would say the strongest influence was Harnoncourt but no ifs, and or buts. The way of thinking first of all how music is composed and then how music also communicates, I would say I’ve learnt most and received most impulses to my thinking from him, no question, over the 26 years I’ve been working with him. No question, and I mean just look at the titles of his books - Musik als Klangrede, I forget how that’s translated. The Musical Dialogue is the other one and it’s specifically about these things, it’s only about these things, yeah.

Facilitator: Wow, and I guess to be immersed in that for such a long...

Interviewee: That length of time and with a huge variety of repertoire from Handel to Bartok and everything in between, yeah.

Facilitator: Do you find that there are similarities in approaches between Handel and Bartok?

Interviewee: No question, yeah, it’s the same language just a different inflection. The same tools for communication - that’s what I mean, music is definitely a language and the tools of communication have remained fairly constant from whenever to whenever. Obviously with developments and variety and national inflection and people burning down the house like Beethoven but still obviously within - still the actual building blocks of expression are fairly definable, I think.

Facilitator: Sure, throughout the ages.

Interviewee: Yeah, and remarkably similar.

Facilitator: Great, thank you very much, much appreciated.

Interviewee: My pleasure. Good, I hope I was some use.
Appendix D – Paul McMahon interview

This appendix contains a transcript of the interview conducted with Paul McMahon on the 23rd of June, 2014 at the Australian National University School of Music. The specific questions prepared for this interview included:

- Similarities between instrumental and vocal concepts/technique? Strings and cello in particular?
- Other instrument apart from voice? If so, does one influence the other?
- Use of instrumental ideas in teaching?
- Rhetoric in music (early music) – vocal music to instrumental music? Other aspects of early music?
• Work with continuo – influence of one on the other? Cello’s role in early music. Any collaboration with cellists outside this genre?

• Any other ideas/comments on the topic?

Start transcript

Facilitator: First of all, thank you very much for agreeing to speak with me about this...

Interviewee: It’s a pleasure.

Facilitator: ...topic. First of all, I just want to get your response to the statement that you just read. Do you agree? Disagree?

Interviewee: Read it to me again.

Facilitator: So the first paragraph was just about the fact that there’s this idea it seems in the public about the cello being similar to the human voice. The second paragraph was about the pitch of the cello being relatively similar to at least the male voice. The third paragraph was about the kind of physicality, the dimension of the instrument. The next one was about the actual techniques that you use as a string player, as a cellist comparing them to singing. Then a small bit about...

Interviewee: Just tell me a bit more about those...

Facilitator: Right.

Interviewee: What techniques would you be...

Facilitator: Things like - I mean the obvious analogy is the length of the bow being related to the breath. But other things like various articulations that you can make with the bow being related to diction and so on and things like vibrato and also kind of moving between notes, so how you move between notes. Yeah, that kind of thing. Next was the way that some composers at least have viewed using the cello in their compositions. Then I just said that maybe singing - the singing-ness of the cello is not an exclusive thing but seeing as it is quite close in pitch to the human voice and all the other points that I made that perhaps there is a kind of - not a correlation but a similarity there at least.

Interviewee: Okay. Yeah I think a lot of those things have a significance. It’s a difficult thing for me to say because I’m not a cellist. But I have done quite a lot of repertoire in one kind or another with stringed instruments and I suppose more so with a
string bass instrument in continuo. Certainly I think some of those things are very true that you've said. I do think that they're worth looking into. It's not something that I've ever given a great deal of thought to I must say but that's not to discount it at all, particularly for someone who's principally a cellist who's also interested in singing which is what you are.

Therefore, it seems particularly relevant to me, if you're a cellist who's interested in working with singers which I guess you are. That says to me that there's obviously something there that from a music practitioner's point of view is worth pursuing because the cello, by its nature, is one of those instruments - particularly in baroque repertoire - that's going to be closely associated with solo voices and with voices in an ensemble. It would be interesting to me to find out - now that I think about it, I wonder what research has been done in this area in the past because it does seem on one hand to be quite significant.

On the other hand it seems like it's worth knowing what actually has been published in the scholarly domain. That would make very interesting reading and it would also give your research some scope to take on a life of its own as it were. I do wonder that. Without going into too many tangents, what have you found in your literature searches that...

Facilitator: Not a great deal to be honest, not at least specifically on this topic. There's various references to singing as an approach to instrumental playing. Just kind of cursory ones though; nothing that I found that's particularly detailed. I haven't looked into the role of the cello in that kind of early music context as a continuo instrument particularly - actually I don't think I looked into it at all yet. But that's one of the questions I guess that I'm going to be looking at is how, as a cellist, do you work with singers? Also, there are various pieces that I've come across that have singing and playing at the same time.

Interviewee: Martin Wesley-Smith is one. Have you ever...

Facilitator: I haven't heard that one.

Interviewee: Yeah, Martin's written several pieces for a singing cellist actually. *Hotel Turismo* I think is one with his interest in East Timor. It would be worth...

Facilitator: Is he an Australian composer?

Interviewee: Martin Wesley-Smith?

Facilitator: Yeah.
Interviewee: Yeah, absolutely. He lives in Kangaroo Valley. He’s retired now but he’s still active as a composer. You should talk to him actually because he was an academic for a long time at Sydney Con and has always been a very active composer. He has been for a long time. If you’re interested in talking to him I’d be happy to give you his email address.

Facilitator: Sure, yeah that would be great.

Interviewee: He’s a very nice, very interesting guy.

Facilitator: If I’d known about that earlier I could have included it in my schedule.

Interviewee: Indeed.

Facilitator: Oh well. Great, okay. I mentioned in the statement a couple of what I feel are the similarities between string playing and singing. What are your views on just instrumental playing in general and singing in terms of approach and aspects of technique and so on?

Interviewee: Well I suppose that aspect that you mentioned before about the use of the bow and also vibrato are two things - I always think of it from the baroque perspective. I recall I did a series of interviews for my PhD with a lot of very well-known English singers and several of them spoke about - my research was looking into how singers learn about baroque performance practice, how they become skilled and proficient. Several of these singers said (a) they had very little one to one theoretical training in baroque performance practice. It mostly came on the job. On the job really meant watching and listening very carefully to the continuo players in the big name professional groups that they started working with.

You know, the Academy of Ancient Music and Bill Christie’s group and all of those - Herreweghe, et cetera, et cetera. A lot of the time they were talking about the use of the bow and that inactive left hand. The flexibility and the - you talk about articulation through the use of the bow. The ideas of phrasing that they spoke about as well and a lot of even ornamentation came through that watching and listening to very experienced and very good continuo players or instrumental, mostly string players in general. I would certainly mirror that in my own experience.

Facilitator: Of course there’s that idea with baroque string playing that the down-bow is very much an exhalation stroke and the up-bow is kind of an inhalation.
Interviewee: That’s right and a lot of the treatises talk about ‘in imitation of the voice’ and yet in the 21st Century or in the 20th Century when we look back on it historically, it’s fair to say that most of the very well informed practitioners in terms of early music are usually instrumentalists and not singers for a variety of reasons. On the one hand we can say imitate the voice but when the voice doesn’t really know what it’s doing in terms of the style then why would you do that?

Facilitator: That’s surprising because I mean obviously vocal music throughout history has been a big part of the repertory but in early music it’s - I mean there is purely instrumental music but...

Interviewee: What’s surprising?

Facilitator: Well surprising that there weren’t singers - there weren’t many singers perhaps who were knowledgeable in that area.

Interviewee: If I think back on it, most of the people who have done extensive study were instrumentalists in the Schola Cantorum in Basel and in The Hague and various things. And it’s especially true of the English system - you know there were a lot of very well-known English singers who came through the cathedral and the Oxbridge circles with absolutely no training in historical performance practice at all and yet became very well-known in early music and as early music specialists with really nothing to back it up in terms of theoretical practice. But a lot of on the job experience and picked up by, you might say, osmosis really. It’s slightly less the case now but it’s still I think very true to say that the majority of practitioners who have really gone into it are instrumentalists, not singers. Yes, for a variety of reasons but anyway that’s probably slightly off the track. But just getting back to what you were asking, I would say definitely, just to reinforce that, the use of the bow and vibrato.

Facilitator: What do you think, as a tenor, about that idea - well how do you react to the cello sound? Does it resonate with you in any particular kind of way?

Interviewee: Yes it does. When I think back to performances of Bach Passions and there are particular players who I recall not so much - well for the quality of sound, not only for their ability to play the continuo well. Each player has their own sound and the instrument itself, it’s one that you wouldn’t want to have anything else. I mean you could have a bassoon or you
could have a bass instrument and a keyboard - well yeah, you could but actually why would you? You actually want to have a gamba or a baroque cello because it seems to fit the bill so well. That may be just a case of ‘well, we’re used to hearing that’ and therefore that’s what we assume is the best thing. But it’s very hard for me to think about any other instrument in combination that would have the same impact I guess.

Then, when you get a really good player, it’s that - there’s two things. It’s the combination of the way that the keyboard and the cellist operate together but their ability to almost – well, to second guess what the singer is going to do or actually be so in tune with what the singer is doing that they are just always there. That is something that is a particular skill which not many players have. They can play the notes and they can generally play reasonably together with the keyboard but it’s that ability to be one with the keyboard and one with the singer. Not many players have that ability, certainly not in Australia. There are a couple but by and large - and those couple of players really stand out because they are so good at what they do.

Facilitator: That, I imagine, takes quite an intimate knowledge of how singing works.

Interviewee: Yes and no. Probably less rather than more I’d say. It’s more being very familiar with the repertoire and being very across their own technique and that sensitivity of sound and sensitivity of - well yeah, use of the bow and to be conscious of what the singer is doing. It’s more I think about aural capacity and musician-ly capacity than it is about intimate knowledge of the voice. But I suppose the more that an instrumentalist works with singers in that way, by its nature it would start to become self-informing, as it were.

Facilitator: Perhaps it’s a similar - like it’s a reverse case of what you were talking about with the osmosis that happens with singers and instrumentalists. It’s kind of, as you say, the more that you work with singers...

Interviewee: Yeah possibly.

Facilitator: ...the more you get to know how phrasing is going to go.

Interviewee: Yeah possibly. I think it is those things though. It’s really intimate knowledge of the repertoire, the part, which comes back to experience I suppose. Then it’s being across your own technique enough that you can divert quite a lot of your brain to concentrate - what you’re doing is taken care of. That you’re actually then really conscious of the overall
performance and really being part of that trio of sound if you like.

Facilitator: It's a real kind of chamber music art isn't it?
Interviewee: Yeah it is.

Facilitator: I guess as a singer too, it's kind of chamber music in that sense too, from the singer's perspective.
Interviewee: Yeah very much so which is one of the things that I like about it.

Facilitator: I'm interested whether you've ever learnt or play any instrument yourself other than singing?

Interviewee: Yes, piano primarily. I dabbled about in the guitar when I was at school and a little bit of the saxophone. Primarily I had lessons in piano.

Facilitator: Did you find that your experience with singing has informed your piano playing or perhaps was it not at a stage where...

Interviewee: Not really. I never did any - when I was starting to get serious about singing I wasn't really doing any significant study of the piano or piano playing. It was always something I did when I was at school and singing was kind of a by-line then. It wasn't until I'd almost finished school that I started to sing and therefore - yeah my study of the piano was really done quite early on I think. There's nothing there in one sense but in the other sense I have very rudimentary skills in the piano but I'm very happy as a singer to have that because it means that I can be self-sufficient. That is extremely important for singers.

Facilitator: Self-sufficient in what way?

Interviewee: Self-sufficient in picking up a piece of music and actually being able to learn it myself and not having to rely on someone to teach me the notes. A lot of singers are hamstrung in that way so I think it's very important that, having some sort of instrumental skills but particularly keyboard skills, is very important for singers and I'm certainly grateful for that.

Facilitator: Do you think the technical knowledge that you've got of the piano and the knowledge of playing an instrument has helped your singing or has informed your singing at all?

Interviewee: Yeah it has. One thing that I think a lot of singers are guilty of is not listening. They're terribly focused on their own selfish sound and they're not really listening to what is going on around them and the more sound they make the less they
listen. I think that that capacity to be aware of another instrument early on and particularly in relation to what you’re doing as a singer but I suppose on a more fundamental level actually listening to something to hear the pitch of the note.

Then, as you go on, being more aware of the piano in its - what’s the right way of putting it? I guess the more intimate knowledge you have of an instrument the more well-rounded it makes you as a musician and therefore it has to inform your principal instrument. So that awareness of the intricacies of piano music as it became more demanding as grades went on, it certainly is a way of opening up your mind to other things apart from the voice. That can only be a good thing for singers I think.

Facilitator: I guess there’s an element of discipline that comes with instrumental learning that perhaps sometimes isn’t quite as prominent with singing.

Interviewee: Yeah, well that’s true. I mean I suppose I was as good case in point. I was having piano lessons as a child and that doesn’t generally happen for singers. Obviously there will be choristers at a young age but the voice really, in comparison to instruments, takes so long to develop, that having that discipline early on is a very good thing for a singer to have. I guess you can say all of these things have an impact on the voice and are significant in shaping it in some way.

Facilitator: In my education as a cellist, my teachers have sometimes used ideas of singing and of vocalising to help me with phrasing and to help me with sound generally in my lessons. I’m just wondering, as a teacher, whether you ever use ideas from the instrumental world to assist your students.

Interviewee: Yes and no. The short answer is yes I guess. The thing that springs into my mind is Mozart. A singing student comes along with a Mozart aria from a Mozart opera and unless that student is aware of the Mozart piano concertos and Mozart’s works for the violin, they’re not going to make a full fist of that aria. So I do say to them, right if you’re not aware of it then get out and listen to these things. There is that in a kind of general way.

Facilitator: I think that works in reverse too. If you’re approaching a Mozart string quartet and you don’t know any of his operas, for instance, you need to...

Interviewee: Yeah I guess that’s right.

Facilitator: …acquaint yourself.
Interviewee: That’s true. But I suppose on occasion, from time to time, I have made reference to an instrumental kind of approach. I don’t know that I can think of anything specifically.

Facilitator: Things like melismas and maybe the attack of the voice or whatever that could be related to the attack of a bow or the...

Interviewee: Not necessarily melismas but portamento I guess is one and that’s something that you would certainly make reference to a stringed instrument. You know, that idea of legato and portamento and the ability - because it’s a visual thing because you can actually see the finger sliding on the fingerboard and hear the sound that goes with that. Acquainting a singer with the concept of portamento through that example is one that I have used I guess. I’d have to think about others. But the answer is certainly yes.

Facilitator: Great. In the interviews that I’ve already done the idea of rhetoric has come up quite significantly and I wondered what your view on rhetoric in terms of the language of the music is and how that relates to both vocal music and how that might influence instrumental too.

Interviewee: It’s something that is extremely important in my opinion. If I think about the repertoire that I sing mostly, it’s what underpins it. I’m sure you’re aware of that book *The Weapons of Rhetoric* by Judy Tarling.

Facilitator: No.

Interviewee: String player.

Facilitator: No.

Interviewee: It’s definitely worth getting. I’m just trying to think of who publishes it. But it’s certainly Judy, J-u-d-y Tarling, T-a-r-l-i-n-g, *The Weapons of Rhetoric*. But the more I looked into material during my PhD, the more that concept of rhetorical performance came up, not from time to time but all the time. It’s tied to the oratorical practices of recitative and the ability of the singer and the musician, the interpreter, to move the emotions of the listener and to perform in a rhetorical or oratorical way. Certainly in music of the Baroque period that’s what it’s all about. Yes, for me it’s - well when I think about the Evangelist role for instance, it really - when I come back to it, it’s looking into the music again, into the deeper sort of meaning of the words and getting in tune with that.

Then being familiar with it to the point where you can basically - you’re really eyeballing and challenging the audience to really make some connection or make some convincing argument to persuade the listener. We come back
to the idea of oratory. A rhetorician or an orator is really persuading the audience to his or her opinion. That’s what underpins Baroque music performance and for me it’s really the crucial thing, the number one thing. You can really think about good performances and not so good performances but you can really forgive a lot when someone is so deeply engaged in the text and the music and in the delivery of that, much more so than someone with a superficially beautiful instrument but with very little or no deeper engagement with or ability to connect with or present to an audience.

Obviously you would want to have a combination of those things but primarily it’s that ability to connect with the music, the texts and the audience. That’s number one in my view.

Facilitator: I guess as instrumentalists we perhaps have to work even harder at that because we don’t have text to help us along. I guess also having text, composers could potentially be superficially saying something with the text but saying something quite different with how the music is actually running with the text.

Interviewee: Yes and some have made a particular point of that over the years. But I think the good ones, the musical language and the texts are so intimately entwined. You think of Bach and Handel as the prime examples of that, particularly Bach which is why I get so annoyed when I hear people singing music that is not in the original language because I think that’s one of the really important things is that the music itself was conceived with the text in mind. Once you remove that and you superimpose something else, you’re actually cutting a lot of the core out of the music itself. Superficially it’s the same but actually it’s not the same.

Facilitator: It’s very hard to also get a translation that will emphasise things with the music in the same way.

Interviewee: It’s impossible in my view. The sound of the language is part of the music and you can’t just suddenly put another language in there and convince me that it is the same music. It’s not. Just the same as that - fortunately it’s less the case now though, in recent times - you know opera companies on the continent doing the operas of Benjamin Britten in German or in Italian or French. It’s the same thing. It just doesn’t - to a lesser degree I suppose but it really doesn’t make any sense to me at all because of the fact that the really good composers are so in touch with the language - musical and text language - that they create something that is very much entwined as one.
Facilitator: I guess there are contours and rhythms within the speech of a culture.

Interviewee: Of course there is. Well look at the German language for instance.

Facilitator: Totally, yeah.

Interviewee: It just doesn't make any sense of the music even with the very best translations. I've done the John Passion and the Matthew Passion in English - fortunately only once, never again - and it was not a happy experience. It just didn't make any sense to me.

Facilitator: We covered earlier your thoughts on the work with continuo. Are there any other thoughts about that relationship?

Interviewee: Continuo?

Facilitator: Yeah, the relationship between singers and continuo players in recitative and arias and things.

Interviewee: Only to reinforce what I said before about young singers can and should learn by watching and listening what very good continuo players are doing. That is one of the best ways that they can learn about phrasing and about the way to approach cadences and the idea of awareness of other parts. Because without that, you can't function as a continuo player. But singers also need that as well and a lot of them don't have it unfortunately.

If I think of it in a more broad kind of way, there are other instrumentalists, not necessary cellists - if you think about certain violinists over the years, it's also that - variation is the wrong word - subtleties I suppose. Subtleties in the use of the bow and what that can do to the sound is something really interesting and directly applicable to voices. I think about some of Bach's partitas for the violin and some of the extraordinary things that violinists, good ones, can do with the bow to change the colour of the sound. That's directly applicable to Bach's vocal music and to Baroque vocal music in general I think.

Facilitator: Have you had any collaborations with cellists outside of that early music...

Interviewee: Not so much when I think about it. I have done chamber music stuff in the past. Things that come to mind are Vaughan Williams' On Wenlock Edge. I've sung that piece quite a few times over the years. That's for piano quintet. I also did a song cycle by Peggy Glanville-Hicks, the name escapes me now, it was five minutes, a very short thing. But
that exists in an arrangement for maybe piano quartet - I'm not sure but there was definitely strings and the cello double bass in that. Yeah maybe it was piano quintet and double bass I think. Then in all the orchestral repertoire. So not so much with strings in chamber music although there have been examples over the years but primarily in orchestras really.

Facilitator: Finally, is there anything else that springs to mind about the topic that you want to share?

Interviewee: Yeah. It is interesting. I think it's worth emphasising that if you think about it in an academic perspective, reflecting on your own practice and that awareness of other instruments or other singers, is a really worthwhile thing. I would be interested to see what's out there in the literature in terms of this idea of the voice and the cello. Have you looked into JSTOR and databases like that?

Facilitator: I’ve looked in Google Scholar and I’ve been into Melbourne University and spoken to the librarian there and she’s done a...

Interviewee: Because JSTOR will give - you’ll have...

Facilitator: ...quick search.

Interviewee: ...free access to that through the Griffith.

Facilitator: Through Griffith, yep.

Interviewee: Through the library. It's similar to Google Scholar but with Google Scholar you just get a little snippet but with JSTOR, once you’re logged in - because the University is paying for the subscription - you can download the articles as PDFs, you can print them and the search capacity to fine tune something is really - it's a very, very good database for music research. The other one - that is something that I've discovered recently - is the National Library of Australia. I would suggest it’s a very good idea to join. It doesn’t cost anything to join. You get a card and once you have that card that enables you to use all of the electronic sources that the National Library has at its...

Facilitator: Wow.

Interviewee: ...disposal which is much better than any university that I know. The range is extraordinary. I’m writing a paper on Handel at the moment and I have been accessing through the National Library this database called British Newspapers 1600 to 1900 and I have found so many extraordinary sources. These are scanned pages of the newspaper from - I
was looking at an advertisement in one of the London papers for one of Handel’s operas. You know, all this stuff.

Facilitator: That’s remarkable.

Interviewee: It’s there. It’s scanned and it’s up online and I can take a screen shot and I can dump that into a PowerPoint slide. It’s fantastic. I wasn’t aware of that until this year. So definitely use JSTOR and definitely join the National Library and have a look at the databases that are available in terms of searching for literature. It’s extraordinary what’s there. I’d be very surprised if there’s not some body of work there but even not necessarily in terms of the cello but just relationships between instruments and voices just to give you some kind of context for situating your work as it were. See what you find.

Facilitator: Great.

Interviewee: What is the plan from here? How many more interviews do you have to do?

Facilitator: I’ve got the interview with Robert up in Queensland. I’ve been in touch with a cellist in England, Libby Wallfisch’s son Simon Wallfisch, who has a show where he sings opera duets with himself playing the cello and stuff. I mean he’s had a professional life with the cello and also as a singer too so I thought that would be quite interesting to look at. At this stage, that’s all I’ve got planned. I was hoping to speak with Anna Connolly down in Melbourne. I might still follow that up. I had a link to Barbara Bonney. One of her students, who I know quite well, has come back to Australia and said they might be able to tee something up but I haven’t heard anything from her.

Interviewee: That would be quite useful.

Facilitator: Yeah. I also made contact with - I don’t know whether you’ve of this composer - Pēteris Vasks.

Interviewee: Yes, I’ve sung some of the music actually.

Facilitator: A Latvian composer.

Interviewee: Not much but...

Facilitator: One of his pieces uses the cello and the voice together. You sing in harmony with what you’re playing and that kind of put me onto this idea of thinking about the cello and the voice and how they might be used together and how one might influence the other and so on.

Interviewee: It’s a good topic I think. It will be interesting to see where it goes. I’ve got a meeting now at two o’clock but I can give you
- seeing as how I've got my own computer here, I'll see if I can find Martin Wesley-Smith’s email address for you.

End transcript

Appendix E – Robert Davidson interview

This appendix contains a transcript of the interview conducted with Robert Davidson on the 25th of June, 2014 at the University of Queensland School of Music. The specific questions prepared for this interview included:

- Similarities between vocal and instrumental music/practice? Strings/cello?

- As a string player, do you use vocal elements/approaches in your practice? How?

- Compositions – relationship between voice (contours, rhythm, etc.) and instrumental practice, also general idea of vocal elements in (abstract) music – approach? Studies into language and music?
• Work with singers/cellists as a composer?

• Do you sing yourself? Does your instrumental practice inform your singing and vice-versa? South Indian vocal music?

• Any further ideas/comments? Teaching?

Start transcript

Facilitator: So first of all, thank you very much for agreeing to be a part of this project. Firstly, I just want to get your reaction to the statement that you’ve just read; whether you agree, disagree, have any comments on any part of it?

Interviewee: I think broadly agree, yeah. I was trying to think if there was another instrument in the orchestra which is more like the male singing voice, and I think probably the cello would be the closest one.

Facilitator: Yeah, I guess the bassoon probably has a similar kind of range, but it’s...

Interviewee: It doesn’t have the same - it doesn’t feel so singy, does it?

Facilitator: No, that’s right. Great. What do you believe are the similarities? Are there any similarities in your view, between the voice and instrumental music and the way that you approach the two?

Interviewee: Oh well yeah, absolutely. I mean, as a performer on the bass I always would sing music as I’m learning it. When I was studying bass I would go and talk to singing teachers quite often, actually pay for lessons and actually play for them and sing for them, the pieces that I was learning. I would often put lyrics to music that I was playing, like [the] Koussevitzky bass concerto or something like that, to help it have more expression.

When I’m composing I’m constantly singing all the time. That’s the main way that I compose, more than on the piano or other instruments. So it comes from doing that, and often when I’m writing instrumental music which won’t have any words, I will use dummy lyrics to give some shape to the music.
Yeah, absolutely, so whether I’m playing other people’s music, including in Topology, my group, I’m often writing lyrics in. Sometimes it’s a way to try to remember things. So it’s an aid to memorisation but often because it helps me play more expressively. I think naturally I’m very drawn to lyrics and texts.

Facilitator: How do you choose the lyrics that you set, if it’s a piece of abstract music?

Interviewee: Sometimes I start singing it and see what pops out. Sometimes I just will do nonsense syllables. Is it working?

Facilitator: Yes. Sorry.

Interviewee: That’s alright. No, I know the feeling. I will often - I’ll just sort of let any sounds come out and just like [balaloolala] - whatever, and then I’ll try to see what vowel sounds are being emphasised and then I’ll see if that matches words. Sometimes it will be totally nonsensical. At other times, when I’m composing I might just get a poem or something like that, and start singing it and see where it goes. That’s different, but in terms of learning existing music, yeah I’ll just start singing it and see. It’s very intuitive, actually I guess.

Facilitator: Is it kind of akin to scat singing a bit?

Interviewee: Not - well, I guess, except that I would tend to move away from just the scat and then try to find real words. Actually, a great example is this show we’ve just been doing in Topology, *Share House*, where I found if I was just in the abstract world of the music - and we actually act while we’re playing - the facial expression would just start to wander if I didn’t have some text to link it too, so I put text to this, and things which did tell a story, like - because we just kicked this guy out of the house in the story, so I put words like ‘It’s him or me’ - things which actually helped me to link - hang onto something.

Facilitator: Okay, and would you write that - were you playing from a score?

Interviewee: No. I would write that in the score.

Facilitator: You would write that in the score.

Interviewee: Yeah, actually for that particular one I didn’t, because I already memorised it long before, so I just started to put it together in my head, but sometimes yeah. So a lot of my parts you’ll see that it’s got words in there. Sometimes it will just be ridiculous nonsense things because it’s purely a way to remember the rhythm or something. It might be, gotta get
a better paying job - or something like that, and it's just get to that gotta get a better paying job - gotta get a better paying job - gotta get a - it's a rhythm.

Facilitator: Yeah something you can hook onto.

Interviewee: Yeah, and it's easy to say, and that sort of thing, and it's easy to remember, but yeah, often like when I was playing [the] Koussevitzky bass concerto, I can't remember what the words were, but there was something about an angry husband or something, because I felt like that's what the music was about, and it's what he was saying.

Facilitator: How interesting.

Interviewee: I'd have to - it's going back quite a few years, but I remember that was one where I really did write some lyrics.

Facilitator: Wow.

Interviewee: Whether that's a standard procedure for classical musicians, I don't know but it's certainly something I've found very useful, and again singing - I got more out of some of the singing lessons. It was incredibly useful and a lot of other - but then I also go and talk to - as a bass player I'd go and talk to cellists and violinists as well, but the singing - yeah, just because they're so aware of phrasing, as a good cellist would be, but I mean that's sort of so fundamental to the thing, and you're wanting to get that.

So I remember when - this was back when I was a student doing post-grad and I remember the exam results were like 'It really sounds like you're singing' which was great. That's exactly what I want.

Facilitator: Yeah, cool. So you are able to apply from those singing lessons various approaches to your vocal technique and your vocal approaches to the way that you made the sound to actual technique on the bass. Is that right?

Interviewee: Yeah, mostly to do with phrasing and breathing and just where - how does the phrase evolve and what does it mean.

Facilitator: Is there any specific kind of technical things that you...

Interviewee: Technically? Well, of course all of it has to be translated in how you actually use the bow and all that sort of thing. I think it just was being more - I used to huff and puff a bit when I played. I remember I recorded myself and I'd hear all these [snorting sounds] - sounds like this. I think it's being aware of my actual breathing and my body, while I was
playing the bass, because you have to be aware of that when you’re singing.

Facilitator: Of course, and actually the bass is even more so like that, because very rarely do you sing sitting down. You often play the bass standing up, yeah.

Interviewee: I always play standing up yeah, and try to get that freedom. So part of it was being more bodily aware. I guess it was just really trying to think what it means, and trying to - any good instrumentals will do that anyway, but to actually make decisions about what it specifically means. So I would tend to, with music - I would actually tend to create a specific interpretation and not have it so abstract often and I’ll have an image in mind, and like I say, text and things.

So that to me has actually come - that’s come more from some actors and things, too or dancers. Dancers will often have a specific - they’ll go back to a thing from their memory, like method acting. So I found that in music was really useful, too.

So I’ll tend to very often have images in there, which I’ve worked out phrase by phrase, but also take - so, from the singing I think the biggest thing was just thinking about where you’re breathing - being aware of the breathing, being aware of your body, posture and really thinking about where the line’s going in a melody and how sostenuto, articulation and sustain - it’s hard to think of something very specific, because I would tend to be looking at particular pieces and just go through the singing, like when I’m phrasing.

Facilitator: Oh, I see. So you went into the singing lessons with...

Interviewee: With my bass music, yeah.

Facilitator: ...oh right.

Interviewee: Sorry, didn’t I explain that? Yeah, so I’d take a - trying to think what music I would have taken there - like Apres un Reve and sometimes it was music which was often played on the bass, but originally was a song, like a Faure song.

So I’d see how they’d sing that and say, okay while I’m phrasing this, what’s - so that would make more sense, because they might be aware of that song, but I would also do it with say the Koussevitzky bass concerto, and think, well you know if you were singing this what’s going on with the phrasing? So yeah, I’d take my bass in to a vocal lesson. Exactly, yeah.

Facilitator: Okay, that makes more sense.
Interviewee: I did study a bit of classical singing as well, but not very far. It’s like a semester’s worth or something.

Facilitator: When you were talking about the breathing, and the breathing when you’re playing the bass, do you find that you - is it just an awareness of breathing, or is it something that you actually breathe the phrase on the bass?

Interviewee: I will often - depending on the music, I will often work out the breathing in the same way as you would if you were being a woodwind...

Facilitator: Like a wind instrument or a singer.

Interviewee: ...instrument or singer, yeah.

Facilitator: Okay, right. That's interesting. I've never kind of thought of doing that.

Interviewee: Well it does happen quite a lot with string players, that I've known, yeah.

Facilitator: It's very easy to forget to breathe as a string player.

Interviewee: Yeah, well it was mostly because I really noticed that when I - a friend of mine - I was practicing at this friend's house and he said, why do keep going [snorting sounds]. I recorded myself and I thought, well that's sort of really a bit strange. So I wanted to get that awareness and so I quite deliberately addressed it. It's been a while since I've actually thought about that very deliberately though, so it might have crept back in. I don't know.

Facilitator: So, you've answered some of my questions here already. I noticed, just while we're on kind of the vocal idea, I noticed - I looked at the Australian Music Centre website and I noticed that you'd done some research into South Indian vocal music.

Interviewee: Yeah, so I did study vocal music, but not really from the ground up. I know I spent something like eight months studying voice in South India, which is just total beginner level really. Techniques - mostly, if you're studying South Indian classical music really properly you'd spend like a year just doing two notes or something.

In fact I went and visited my old teacher there, who's not that - he's only probably in his early 50's I guess, but he was - I went back to him - this was 20 years later, by the way - and I sang some of the songs I remembered from back then, and he said, oh you can sing the melodies okay but you can just tell that we didn't do this thorough training like most of my
students spend a year on just one note, and just getting that 
tone. It’s very methodical, so it takes years.

It’s a very long - often they’ll spend 12 years before they do 
anything in public. So I just had a very basic beginner’s level, 
but it was really useful because obviously you’re thinking 
about using your voice very differently from in western 
music. It’s very much about floating on top. In some ways it’s 
related to bel canto I guess, but it’s a totally different 
approach with ornamentation being fundamental.

Facilitator: Do you find that that experience that you had has informed 
your composition?

Interviewee: Oh yes. I guess, just generally through engagement with 
Indian music. In some ways it was as though I tried to do the 
opposite of Indian music, because I wanted to think what’s 
great about western music. I got tired of meeting Indian 
musicians who would just dismiss all western music as 
childish. So I thought ‘Stuff you!’ No, I was very influenced, 
particularly by rhythms. I mean, like many Australian 
musicians, there’s just been a big influence from artists like 
Karaikudi Mani the mridangam player who’s taught a lot of 
Melbourne musicians for instance, and Brisbane musicians. 
So there’s a lot of interest in that, and also just thinking very 
modally I guess in the same way as the South Indian raga, and 
not being so worried about having to be chromatic all the 
time.

That was definitely finding the glory in melody - not that I’d 
say that my music’s - it just got more melodically oriented I 
guess and less towards texture, but in some ways I also 
wanted to embrace counterpoint, which is not there much in 
Indian music. In terms of just the experience of singing, 
maybe - I think it probably did. It made me think - it made 
me start composing more from the voice.

That’s what I would very much - like, I say it’s in my primary - 
I’ll often compose while walking round and I’ll quietly sing or 
I’ll start by singing often, because I want it to be very intuitive 
and what’s coming out of the body. That’s very important to 
me, and not to be too abstracted, and to be very connected 
with what’s intuitive - coming out of me, and not too much 
from the conscious brain, I guess. I often have to do things 
which will distract me from over thinking at the beginning 
stages, and singing...

Facilitator: Yeah, so you can really see what’s there and...

Interviewee: ...yeah, what’s coming out.
Facilitator: ...clouded.

Interviewee: Yeah, so I do a lot of improvisation singing, and just sort of stupid exercises to be foolish to try to stop that - the critical voice a bit I guess, yeah getting ridiculous things - often when I'm - I don't know if other - this is - some other song writers told me they do this; when they're in the car by themselves, they'll sing out some ridiculous things, often with a lot of swearing in them, being childish really, and that allows them exploration of more serious ideas one hopes, and then you would change the words or...

Facilitator: Yeah, so kind of getting in touch with the more core part of yourself or something.

Interviewee: ...well, yeah I guess so - just trying to get to the intuitive part of yourself. It sounds very sort of dippy and new age or something, but...

Facilitator: No, I think it's - I would agree.

Interviewee: ...I think it's the same when you're playing music, too. You've got to use both sides really. You've really got to go in and totally analyse every bar and what's happening physically and all that, but then sometimes you've got to let the more intuitive side of you come through, which I think - there's a book called The Ancestral Mind, which I think was quite useful.

It's talking about how there's the whole prefrontal part of the brain which tends to want to take over all the time, but our ancestors survived for many millions of years quite happily socially and everything without that whole brain development and it's still all in there - the mammalian brain, but it sort of tends to get dominated by that very abstracted brain, which is incredibly obviously useful and important for humans, but there's also this other side which you sort of have to give due recognition to.

So I try to do things which will distract my rational brain sometimes, like doing other things while you're making up music. So often I'll be riding my bike, walking around, doing the dishes, something else while I'm doodling away, and I'll be recording it, and that's when I often get the best ideas, or just giving yourself very limited time.

Between classes I'll have five minutes and I'll just say 'Okay, whatever I come up with' and I'll record it, and often those are some of the best melodies I come up with, or if you can, it's pretty tricky but sometimes I've managed to do it when just on the verge of sleep, either when just waking up or
when just about to go to sleep - I get ideas that way which many people have reported similar things. I think that's also the same thing, I don't know, that your abstract brain's a bit less in control then.

Facilitator: Exactly, and I think people often have their best ideas in a kind of rational way, not necessarily to do with music, but including music, when they're doing things like washing up or in the shower or whatever.

Interviewee: The shower's another one, yeah.

Facilitator: Yeah, when they're just doing things that are completely - they don't have to think about anything while they're doing it.

Interviewee: Yeah, definitely the gym - for me, it's like the places where I get the best ideas is going for a bike ride or a walk, at the gym, driving around - unfortunately that's a bit less practical because you've got to pull over to the side. Yeah, so I have to have my phone with me - or just walking around the city and waiting for the “don’t walk” sign I'll get an idea and I have to sing it into my phone.

But yeah, singing - hugely important for me, but often I'll be jamming away on a piano and come up with a nice texture and I'll just start singing random sort of ideas which come out of the texture as well, and that's - and I've got many, many embarrassing recordings on my iPhone, which turn into pieces. That's how I'll get my pieces. So I don't think all these sort of - sometimes I will - another side of composing is I will sort of think, okay this is a nice set of notes and I can do all these sort of clever transformations.

That will usually come out of the raw material I've already got. To get just the basic raw ideas it's pretty intuitive and it's very often coming out of the voice, or sometimes with jamming with others - with the voice, too. In fact, I do quite a lot now getting together with other - with song writers and people from other genres, and just jamming and singing together and see what comes out. Again, a lot of - with people who I'm not going to be embarrassed in front of, because seriously, some of the jams just sound stupid, but that's a good thing.

Facilitator: That's right. Yeah.

Interviewee: Yeah, so it's the same with putting words to a classical piece. It will often just sound stupid at first. You might say just nonsensical lyrics, but then you just shape it until it becomes something you're going to be comfortable with. I found that very useful for expressing. I'm sure that a lot of people never
I do actually, yeah but not in a - in a sort of more rock style I guess - an untrained way.

I do actually, yeah but not in a - in a sort of more rock style I guess - an untrained way.

I started as a musician playing in bands with electric bass, so it wasn’t too much - you know, you learn to be coordinated.

I don’t do complicated bass parts usually. I don’t do lots of - or tend to do - when I’m singing I’ll tend to fairly straight forward parts, because I’m writing it myself so I can do what I want. Though, one day maybe I should. I should write a quite extensive - and something which you’d really have to practice to coordinate, but I haven’t done it yet.

Part of my research is looking into the way the cello is used with the voice, too. There’s not a huge amount of repertoire out there, but there are pieces.

For just cello and voice?

Yeah, either the cellist vocalising, or the cello with voice - often with another instrument as well though.

Yeah, the whole vocalisation thing, that seems to have been much more in the flute than just about anything else, doesn’t it? You’d think cello would make a lot of sense because - there’s a string quartet by a young American composer (Roulette by Anna Clyne, released on Tzadik in 2012) where they all have to hum bits and pieces. I’ll have to look that one up, but that’s a really effective piece. Are there many where the cellist sings?

Well the one that kind of got me interested in this whole idea - well, it kind of sparked my interest anyway, was by Vasks - Pēteris Vasks. It’s a solo cello piece, and the first movement is just cello and then the second movement has this part where you sing in harmony with what you’re playing.

It’s quite a tricky thing for somebody who hasn’t really done the accompanied singing before, and especially with the bow
- I found - like maybe with plucking or strumming or whatever that would be - it's a bit more rhythmic, so there's not the kind of level of coordination involved, but when you're actually playing a melody and you're also singing a melody which is slightly different, it's very tricky.

**Interviewee:** Yeah, you have to sort of take it apart and do it bit by bit really, don't you?

**Facilitator:** Yeah, using the kind of different parts of your brain.

**Interviewee:** Mmmm, but no it's only a fairly recent thing in Topology. I've been wanting to do it for years, but I sort of felt like 'Oh, I'm not a proper singer', but it's been great. I get a lot of nice compliments about my voice, which is good, from the audience. So in the last - we've released a few songs like that on our last two albums ('When you found out' on the album *Ten Hands* and 'It took me so long' on the album *Share House*).

**Facilitator:** Talking a bit more about your compositions, when we were down in Mt Buller, you played us some of your - are they called voice portraits?...

**Interviewee:** Yeah.

**Facilitator:** ...where you essentially transcribe a vocal contour or something in instrumental terms. I'm interested in that aspect as well, in terms of what process you went through to create those pieces, and what you've learned from that process and whether it's actually informed your other music - your abstract music.

**Interviewee:** I think it has. I think that a lot of my melodic things which are less sort of soaring, or I don't what you call - lyrical - more towards the recitative side will often, I'll be thinking of what I've learned from hearing hundreds of hours of speech melodies. So I take the melodic contour of spoken recordings.

Just finished a new one from a Tony Abbot speech from earlier this year (*A stain on our soul*), which was when I was quite sympathetic towards - and having - I got a bit of attention from one earlier this year for Julia Gillard's 'misogyny' speech (*Not now, not ever*), too and both of them were accompanied by a choir - the Australian Voices.

**Facilitator:** Yeah, I heard - there was one called *We Are Sorry*?

**Interviewee:** Yeah, *We Apologise*. That was a different one again actually, because that one used a lot of - that was quite a different technique of using extreme time stretching and then turning the choir, and then re-compressing the choir who was
imitating the time stretched audio, and then bringing it back into un-stretched time so you could actually reproduce the words purely from the choir sound. I want to do that instrumentally too actually.

So what does that mean? Well, just one thing which I'm very interested in is the individual musical style that perhaps people project, because that's what I've noticed; whenever I've transcribed someone's speeches I find that they have a particular pattern. They may tend to have a particular falling interval at the end, like Charles Kingsford Smith - most of his utterances, at the end of each phrase he'll fall a sixth or maybe a fifth. In a particular - it tends to be in E flat - and that sort of thing. He'll tend to have particular intervals that he uses.

Just generally people have - they'll be particularly conjunct or disjunct and they'll have specific intervals which they tend to - or at least specific basic size, shapes. They often will have a specific tonal sort of markers and profiles. So I'm really interested in that. I guess that has helped me to sometimes construct melodies which exhibit some of those same profiles, as speech will tend to do - and sometimes rhythmic aspects as well.

Facilitator: Do you find that is a cultural thing, too?

Interviewee: Oh yeah, absolutely. Yeah. There's been some good research done on that - finding the differences between French and English language and music and how it's reflected in both melody and spoken language - by Ani Patel. I think it's a really interesting area. Another project I was very fascinated by was [by] Rudresh Mahanthappa.

If you want to write that down I'll have to spell it out for you, but he's a fantastic New York-based sax player, whose ancestry is from South India, and he was sick of people asking him 'Do you speak Indian?' There's like 500 languages in India. So he did a project where he tried to get the musical essence of lots of different languages in India, like Tamil and Malayalam and Kannada and Hindi and quite a few others - Gujarati.

He went around and just recorded people speaking in those languages and found the musical characteristics of them and then learned to improvise with those characteristics, which I thought was fantastic. You can hear it. He's got an album called *Mother Tongue* and yeah, you listen to the styles and you just - oh yeah, because if you've been to those states, you can just - he's captured it really, really well. Then he
improvises in it, which I think is fantastic. That's a really clever thing.

So Janáček was obviously trying to capture something uniquely Czech about melody when he was going around transcribing speech melodies, and I think you could say that his operas capture something of the Czech spirit. I don't think he actually directly imitated speech melodies in his operas, but he used some of the features that he found in music, particularly rhythmical sort of 'da-da__ da-da__ da-da’ - some of the things which happened in Czech. And Bartók was similar as well.

So I guess I tend - well, when I'm writing a piece of music I often will sort of say things to see what comes out and see where that leads melodically. So it's coming more out of speech than singing, but then where's the boundary between speech and singing?

Facilitator: Exactly, yeah. Do you find - I was thinking about this idea the other day about an 'Australian’ music, and obviously our Australian background in music is very much influenced by the European tradition, and people have made efforts to incorporate aspects of the local culture and surrounding cultures in it, but do you feel - I was thinking about this idea of the music of a culture being quite related to its language...

Interviewee: Yeah, absolutely.

Facilitator: ...and I was wondering whether in Australia, whether we are able to harness that, and whether anybody has kind of achieved that, I guess.

Interviewee: Yeah, I wonder. It's a question which is interesting to me as well, and I suppose that has been something I've been interested in with using some Australian speech melodies, seeing if anything could come out, but I don't think there's anything definitive.

Facilitator: There isn't anything?

Interviewee: Well, not that I'm aware. I think you can - like with - in terms of contemporary classical music there's a certain sort of - I don't know - there's something that feels a bit Australian about a certain group of composers.

I wouldn't want to necessarily limit it to those composers, like Carl Vine and Ross Edwards and Peter Sculthorpe - Nigel Westlake - have a certain sort of combined set of aspects which you also maybe hear in Paul Stanhope and a bunch of people - even Gerard Brophy and things, but in terms of the
Australian language being reflected in the music, gee that's a hard one. It would be great to know, wouldn't it?

Facilitator: Yeah.

Interviewee: It would be interesting if there was a lot of pub rock bands or something who maybe had that feeling in it. I don't know. I think it's a really open question. The way that it was done with Ani Patel's work was he looked back at 19th century melodies and found that correspondence between French melodies and French language, and British music and British language, to do with - it's fairly simple, it's just that French has a small range of interval sizes and also of rhythmic variation, like the interval size - the variation in rhythmic values. It's more constant basically in French, and it's also less leapy. So it's the same with music and language.

Facilitator: I guess it's getting harder with the kind of globalisation of society today and the ready access that we have to all different types of cultural influences...

Interviewee: Yeah, quite likely.

Facilitator: ...to maybe find that essence or whatever.

Interviewee: Yeah, when you think of Korean music for instance - how traditional Korean music is very, very based on language, and traditional Chinese like opera and things. It's very based in the speech contours and particularly in tonal languages where they very carefully follow the tone, but if you compare that to K-Pop or Cantopop, they've lost a lot of that often. Though, actually in some Cantopop, apparently I'm told they are very careful to follow the contours of language.

Facilitator: Interesting.

Interviewee: I would have thought some of that distinction would maybe have been smoothed out a bit, yeah.

Facilitator: I guess things like Bollywood also have been able to, to a degree, incorporate the older style into a pop idiom, too.

Interviewee: Yeah. I would imagine that globalisation would have made that national reflection of language styles - probably would have been modified to a certain extent, but it's all a very open question. We don't know much - it hasn't been investigated far enough yet. I think it's a rich area for inquiry, though.

There's a lot of anecdotal stuff. Most people will have an opinion. I think Peter Sculthorpe had this whole theory about Australian language and Australian music actually. He reckons that we tend to sort of swallow our words and
things, and he's got some - he was talking about it in a radio interview. It would be interesting to see if you could find that. It was very anecdotal sort of - it wasn't based on anything scientific.

Facilitator: Sure. I noticed on the Australian Music Centre website that you had written one piece, that was on the website anyway, for cello and computer effects?

Interviewee: Yeah, or just for digital delay.

Facilitator: Spiral?

Interviewee: Yeah, and it can be played by three cellos as well.

Facilitator: Oh okay. What was your experience in writing for the cello alone?

Interviewee: Oh, I loved it. Well, no I've written other pieces for cellos like in the ensemble, and what I did in every case was actually just borrowed a cello and I can work out, being a bass player, I can make a very bad sound on the cello. I just composed it mostly on the cello very physically. I found it very gratifying because it's in a great range. As you say, it's - I play guitar and it's a similar thing to guitar in many ways and it's that feeling of - yeah, it's in the male vocal range. It feels very just direct and natural to me.

I found it a good instrument to write very intuitively through and very emotionally about, I feel like - using a very emotional and involved sort of sense, maybe because the sonority of it really directed me. Another piece I wrote really for cello that's done more often on violas these days is Exterior, which originally was for cello - John Napier playing the cello, plus hand drums and marimba, but the cello is a cello solo. That was - I just was very physical on the instrument there and using it quite percussively and a lot of parallel fifths using flat fingers.

So what was I saying there? Just the sonority of the instrument and the way that you can be very physical with it using the bow almost like a drumstick - I found - often cello’s used in sort of similar place to electric guitar in pieces like Michael Gordon’s - what's the piece called? Industry - you know that piece?

Facilitator: I don’t think I do.

Interviewee: For distorted cello.

Facilitator: Okay.
Interviewee: So I could relate to that very well having grown up basically very much surrounded by electric guitar music. So I found that range of it was good. With Spiral, the thing about the cello which I found useful in that piece is because it's overlaying lots of cello sound - is that it's very - it resonates very well with itself. So I found it really good for making a big fabric of cello sound, which can really get quite thick and still sound really good, basically.

Facilitator: Yeah I think cello ensemble stuff works well for that reason because there's so many kind of layers of range that you can exploit.

Interviewee: Mmmm, but even when it's quite close range too, it just combines really well. It's a sound which somehow - it's transparent enough, but it's also solid enough - more probably than any other string instrument actually, because if you try to do it with the bass it gets very thick very quickly. With viola, it doesn't have quite the same body obviously.

So yeah, you could put a whole cluster of cello sound together in any part of the range, and it'll sound - it'll be pleasing somehow and you also don't get tired of the sound. So Spiral turned out to be quite a long piece, and it's actually in four movements - no, three movements. It's often just done as the first movement. It was written for Nick Bochner actually.

Facilitator: Oh really?

Interviewee: Yeah, and he did the first - it's very often just done as the first movement, like I say, but he did the first performance of the whole three movement version just maybe two years ago, I think. It's all with delay. I just found it was quite natural to write an extended piece, because I just find you don't tire of the sound of the cello like you would with many other instruments.

I think it would be much harder to do a - I wrote another piece for a similar sort of set up of a canonic piece, because - it's all just a canon because it's digital delay. I did one for saxophones - alto saxes and it just - I would never be able to take it as - make it as long, because you just need a break from that sound. So that's something I find - yeah, maybe actually the cello is one of the ones you can sustain the longest without tiring out your ear. I don't know. That's just a very subjective thing.

Facilitator: Yeah. I wonder though. That's an interesting point, because obviously we're trained - we've been trained over the millennia or whatever to be receptive to that kind of human...
Interviewee: Range.
Facilitator: ...range.
Interviewee: Two to four (kilohertz) sort of thing.
Facilitator: Yeah, and as it certainly kind of does lie in that range. So maybe that's another point.
Interviewee: It's a great instrument for speech melody I have to say, actually. So often I've wanted to have a cello in Topology, rather than - I'm often doing - if we do speech based pieces, I'm doubling the speech. Yeah, it will often be outside the range of – viola just goes too low, and too high for - I mean, the bass you can do it, but it's way up in thumb position, so - cello's the ideal instrument for speech melodies, there's no doubt about that.
Facilitator: Cool. Very nice.
Interviewee: So yeah, I would imagine in terms being related to speech, for both men and women by the way - often the viola's not low enough to get a woman's speech, by the way.
Facilitator: Is that right?
Interviewee: Yeah, because women have low voices when they're speaking. That's one difference between singing and speaking; singing tends to be a relatively - quite a lot higher.
Facilitator: High, yeah that's right.
Interviewee: Otherwise you won't project. The way I'm talking now - to sing down there would be quite low. That's actually the bottom of my singing range, but I'm actually speaking normally.
Facilitator: Yeah. Oh, there you go.
Interviewee: So when you put women's voices on, often the viola is not going to be cutting it.
Facilitator: How about that? I wouldn't of...
Interviewee: So, for both men and women, cello.
Facilitator: ...yeah.
Interviewee: You wouldn't - sorry...
Facilitator: I wouldn't have thought that. I mean, I do - I know that our general speaking voices are a lot lower than what we would normally sing in, but I wouldn't have though it was that low. That's interesting.
Interviewee: When we did the Julia Gillard piece in the choir, most of what she's saying - what she said directly had to be doubled by men, not women, because otherwise they just - it's not singing it. It's out of their range.

Facilitator: There you go. I think that's pretty much all I have to ask. Is there any other things that you, off the top of your head that you can think of - any other comments or ideas?

Interviewee: Well, yeah I mean, a piece like Different Trains is obviously speech melody in that a lot of the speech in that is doubled on cello when it's directly there. The cello's very important there.

Facilitator: That's one that you've written?

Interviewee: No, that's Steve Reich's piece - Different Trains...

Facilitator: I have heard of that, yes.

Interviewee: ...which is transcribed speech, and both men and women will often be on the cello. He just doubles the same sort of similar sort of technique as what I've been talking about.

Facilitator: Yeah, okay.

Interviewee: In terms of a solo instrument, I think the cello seems to often cut it better than most as well. Do you know that piece by Roger Smalley for cello and delay? That's another interesting one.

Facilitator: No.

Interviewee: Again it's hard to express what I mean, but it's a good instrument to just be by itself to create a texture by overlapping. I think Roger Smalley's piece - I think it's just called Echo...

Facilitator: Okay.

Interviewee: ...is a similar thing like that. So that's how Spiral works. I mean, it was a commission, but I thought, oh yeah cello and delay. There are probably more pieces for cello and delay than for most other instruments. I reckon you'd find that, or for cello and electronics. So someone like David Pereira has a huge catalogue of pieces for cello and processing.

Facilitator: That he's had written, or that...

Interviewee: Had written, yeah.

Facilitator: ...yeah, okay.
Interviewee: Martin Wesley-Smith wrote quite a big one. It works effectively. I think it comes through loud speakers well as well. Again, probably because they’re well tuned to the human voice, so it might be quite an important thing you’re talking about; the cello’s a really good match for the voice yeah.

Facilitator: Yeah, well I did - for one of my recitals I did a piece for - it was a vocalise for the cello, voice and piano. It was a soprano voice, and it was really interesting to see the way the two kind of were able to work with each other, and sometimes the cello was made to go up into the kind of soprano heights, but mostly it was just singing at it’s kind of nice natural range, and yeah the kind of complement of the two was really good.

Interviewee: Great. Yeah, it’s a good blending instrument, especially with itself. Yeah, like the cello choir is the best homogenous string group, isn’t it really - it’s the most effective one.

Facilitator: Well, I think it’s a nice sound.

Interviewee: You get a whole bunch of violins, it’s not really the same, is it?

Facilitator: Yeah.

Interviewee: The viola’s good too, but the cello’s...

Facilitator: Yeah - not sure about a bass choir.

Interviewee: ...oh they can be nice. They’re just obviously very limited. They sound velvety and things, or percussive as the case may be, but it’s more of a novelty and you certainly wouldn’t want to listen to a whole concert, I reckon.

Facilitator: Great. Alright, well...

Interviewee: What’s those Brazilian - Villa-Lobos ones are fantastic, aren’t they?

Facilitator: ...oh yeah, Bachianas Brasilieras...

Interviewee: Yeah, that’s so good.

Facilitator: Yeah, it’s good.

Interviewee: You just can listen to that forever. That’s what I mean - it sustains - you don’t get fatigued of it, somehow. So maybe that probably is to do with the voice.

Facilitator: Very interesting.

Interviewee: We’ve adapted to hearing our own human voice. Anyhow, sorry.
Facilitator: Great. Thank you so much for...
Interviewee: Pleasure.
Facilitator: ...sharing your thoughts. Yeah, excellent.
Interviewee: Alright, good. Some of it was a bit rambly but...

End transcript

Appendix F – Anna Connolly interview

This appendix contains a transcript of the interview conducted with Anna Connolly on the 28th of July, 2014 at her home in Brunswick, Victoria. The specific questions prepared for this interview included:

- Similarities between instrumental and vocal concepts/technique? Strings and cello in particular?
- Other instrument apart from voice? If so, does one influence the other?
• Students who have been instrumentalists (cellists)? Use of instrumental ideas in teaching? Advantage of instrumental background as opposed to purely singing?

• Physicality - singing compared with instrumental/cello playing? Exercises for singers that may be useful for cellists? Feldenkrais?

• Performing with cello – concert music, opera/oratorio? Does one inform the other? Any experiences outside these genres?

• Any other ideas/comments on the topic?

Start transcript

Facilitator: First of all, thank you very much.
Interviewee: That’s quite all right. Do you want to double-check that, because I did do one of these for a friend of mine, doing a very different subject, and the whole thing didn’t tape.
Facilitator: No good. Okay, it does look like it’s running so I think it’s all right. I’ve got it happening on the computer here as well.
Interviewee: Oh, good, okay. Go for it.
Facilitator: I just wanted to gauge your reactions, I know you’ve been chatting as you’ve been reading through it, but your reactions to the statement that I gave you in terms of whether you agree or disagree with the statement.
Interviewee: Completely agree.
Facilitator: Yep?
Interviewee: Yeah, absolutely.
Facilitator: Anything in particular that you’d like to comment on?
Interviewee: Well, do you want to get me started in that way now or would you prefer to go through questions, your list of things? Because I’ve got a mouth and I can go and go and go and go.
Facilitator: That’s totally fine. I’ll leave that up to you.
Interviewee: Let me have a little think here. I guess I’m probably somewhat biased in that a good friend of mine, Josh Bloom, who is a really good, amazing lyric bass, sings with the Metropolitan Opera these days, he started out life as a cellist and then transferred into double bass actually, and his double bass is still out in my studio with a large crack in it, not worth
anything. I guess I’ve always had that link there between the lower voice types and the lower stringed instruments, and when I talk to singers about altering the timbral quality of their instruments...

[Aside discussion]

Interviewee: If you think of the laryngeal tube being the distance from your larynx to your mouth, I talk a lot with students about needing to get a lower larynx position because that makes a longer tube. As the tube gets longer it also gets wider and fatter, so you get an open throat. One of the analogies I use is cello versus violin, or I will also say tiny child’s nasty little knock-off violin versus real violin [laughs]. So the more sonorous the quality - well, the more open the throat and the lower the larynx the more sonorous the quality. A bass quite often will have a very long neck; it means their larynxes can go lower which means also their throats can get wider than a little chirpy high-voice soprano. There is an immediate analogy there that equates size of instrument with that.

I absolutely agree with a lot of what you've written here. Now, cello, sound of the human singing voice - yeah, look, absolutely. Any stringed instrument I guess you could say that there will be equivalent echoes of. The one that timbrally is least like it would be the viola, for me. Low down, a violin has some of those, but I don’t know how you’d describe that viola sound, there’s a sort of - abrasive quality is not the right word.

Facilitator: It kind of doesn’t resonate as well.

Interviewee: Yeah.

Facilitator: Apparently the viola should, if it’s for the tuning of the strings and stuff it should be much larger than it is, but to actually make it playable they have to make it smaller and so it doesn’t resonate in the same way.

Interviewee: Caitlin Hulcup. Do you know Caitlin?

Facilitator: I don’t, no.

Interviewee: Caitlin Hulcup is a very, very lovely woman, very bright woman who is a mezzo soprano who was a viola player. She used to be with Perth Symphony, WASO. She was talking about all of the problems she had - she’s a tall woman but not tall enough with long enough arms the size of the instrument. Is this why the timbre is just not quite doing it for me the way the cello does?
Facilitator: Maybe.

Interviewee: Even in the paws of Brett [Dean], who did get a big fat meaty sound, mind you. Okay. The double bass can't do it for me either, so...

Facilitator: Yeah. The double bass is another interesting one.

Interviewee: Okay. Yeah, I reckon you're probably right. I haven't thought about it in terms of - I just thought that I just liked cellos, but you're probably right. So where your cello sounds the best is the E above middle C to the octave above middle C. Is that what you're meaning?

Facilitator: Kind of where it projects really well...

Interviewee: Aha.

Facilitator: And that's kind of - you know, there is a sweet spot in the range of all instruments really – that, I think, seems to be kind of the sweet spot in terms of that singing quality.

Interviewee: That's very, very interesting. Where you could look is to see where - well, the singers' formant. You know about the singers' formant at all?

Facilitator: I have heard of this concept, yep.

Interviewee: Vaguely, yeah. All right. There's been a lot of stuff written about it. The main source would be Johan Sundberg who first coined it 'the singer's formant', but it's that particular resonance that can enable the voice to carry above an orchestra, and it is more prevalent in the lower voice types. You do not get it as much in the female voice types, females just rely on decibel to get where they've got to go. Baritones, which I see as being the equivalent of your cello, for me, have got the biggest singer's formant of the lot. It's a particular - it lands on a particular frequency that we call basically the sweet spot as well. Yeah, certainly tenors are going to be happy little Vegemites from E to C, and don't they know it. So are you happy between E and top C [laughs]?

Facilitator: I'm happy between E and A.

Interviewee: A, yes.

Facilitator: B flat maybe. I don't know.

Interviewee: Okay, so how do you feel on an E flat and an A flat compared to an E and an A?

Facilitator: I'd have to [laughs] - I'd have to do more work.
Interviewee: Do you really hate - if you had to choose between singing a D above middle C, an E flat above middle C or an E, or an F, which one would you like the least out of those?

Facilitator: Like the least. Possibly the E.

Interviewee: Yeah, that's what I was wondering. All righty. So if you had to choose between a top G - the G above that, above the stave - G sharp and A, which is the one you like the least?

Facilitator: Well, the A is less secure, I guess, so...

Interviewee: Well, if you like the E the least then the fourth above that will be your second passaggio point.

Facilitator: Right.

Interviewee: So where your passaggio points lie will always get instability in it.

Facilitator: Yeah.

Interviewee: Is there an equivalent in key relationships with playing cello...

Facilitator: With the cello?

Interviewee: ...where there are some keys that are better than others?

Facilitator: Oh, there are definitely keys that resonate more with the instrument, that's for sure, but that's slightly different...

Interviewee: Which sorts of keys resonate...

Facilitator: Well, it's a slightly different issue because you've got the open strings which resonate in certain keys. So in C major for instance you're going to have - if you play a C on the A string, stopped, the bottom C is going to resonate and the G is going to resonate.

Interviewee: Oh, right.

Facilitator: Whereas say in, I don't know, E flat major or something, you're going to have less of those notes which resonate with the open strings and so it's going to resonate differently.

Interviewee: You know what I reckon? If you ended up doing a PhD this would have meat in it, a lot of meat, because passaggio points at an E and an A are a light lyric, very light lyric tenor. E flat, A flat are a slightly heavier lyric tenor, D, G, big bastard tenor, C sharp, F sharp, enormous bastard, you don't see very many of them.

Facilitator: Sure.
Interviewee: I’m sure there would be sorts of - there would be interesting meat here. Anyway, that’s beside the point. Let me keep reading. Dimensions of the instrument too may point to similar sound quality. Yep.

Facilitator: Just on that passaggio point, it’s interesting, I have thought in the past when you play on a stringed instrument you obviously have the notes which are on the neck and then the notes which are above the neck or on the cello’s...

Interviewee: Oh, I see.

Facilitator: The neck, and then you go into thumb position which is kind of different, a slightly different technique, but there’s the point between the neck positions and the higher positions which is really hard to negotiate.

Interviewee: Can I tape you too?

Facilitator: Oh, if you like.

Interviewee: Thank you. Okay, because I love this stuff, not that I’ll ever get around to doing anything with it.

Facilitator: I’ll be sending you a little transcript of the interview anyway.

Interviewee: Great. Hang on, let me just get my thing out. Where have I got it? Where have I got it? They always seem to change the - what have I done with it? Must be here somewhere. I haven’t used my voice memos. Here we go, it’s got a big decibel thing. Do you know Roman Ponomariov, he’s a horn player?

Facilitator: No.

Interviewee: All right. Roman’s right into - we did a lot of stuff last year talking about French horn and voice. He finds getting his horn students to sing a lot really helps their playing. Anyway, so you were saying - this is Kim Worley.

Facilitator: So you’ve got the notes that you stop...

Interviewee: On your cello, yeah.

Facilitator: On the cello, in the neck positions and then the higher positions where you go into thumb position, but there’s a point where you’re going from one into the other where you need to make allowances and you need to alter what you’re doing. I think there may be analogies there in terms of approaching things like passaggio.

Interviewee: I’m sure there would be something meaty.
Facilitator: Yeah. Because you can go quite a way into the higher positions without actually changing.

Interviewee: Yes.

Facilitator: But you can also obviously change quite a lot lower, which makes some things easier too.

Interviewee: You're a very bright man. That is a great analogy.

Facilitator: Yeah.

Interviewee: Yeah. It's whether or not you - don't get me started.

Facilitator: [Laughs]

Interviewee: If for instance you're coming in the voice, if you're having to come down straightaway you can take up a heavier - you don't have to shift your wrist position.

Facilitator: Yeah. If you're not going to be up there forever then you can just stretch and that would be fine.

Interviewee: Yes.

Facilitator: Whereas if you're going to be going higher or whatever then you probably will shift your position.

Interviewee: Yeah. So you'll have to, yeah. That's very, very interesting. Of course you're going higher which is - yeah, that's another thing. Remind me to talk about vibrations per second, thin folds, thick folds - vocal folds that is - in terms of string size. Anyway. Dimensions of the instrument too may point to a similar sound quality, resonate cavity. Yeah, that's great. I'd never thought of that. What I always love about watching cellists is the fact that the instrument is part of the body so much and that there is that complete connection between your sitting bones and stability through the feet and the instrument's there. It's always very beautiful to watch. You don't get that nearly as much with the violas or the violins, except when they're great players. Brett Dean for instance had a full connection right through to his feet all the way through.

Facilitator: As cellists it's often frustrating that we can't play standing up because standing up you have a much greater degree of flexibility in terms of movement and natural movement.

Interviewee: Yes, but you can lose connection to the ground, which is what I see often with the higher string groups. I'm a Feldenkrais practitioner as well, and I really believe when you see a violinist or a viola player who's got a big fat meaty gorgeous sound there is greater connection through the body. I've got
no way to prove it but that's what I feel. I know that when you - if I'm working with singers a shortcut to get them grounded is to get them singing sitting down so they can feel their sitting bones and they will always get a better sound. The trick then is to be able to get that connection going right through femur, tibia right into the foot and that's the harder part. So I reckon you've got an advantage.

I think that double bass players have a huge disadvantage, if they're on those stools they're not balanced, but that's another point. A number of analogies to singing and bow string - yeah, okay, here we go. Yes, no frets. Bow obviously relating to singers' breath - absolutely. One of the preparation for sound production and actual physicality of making sound. This is a huge point. With anything to do with singing, having a good onset of sound is key for the timbral quality of the phrase coming up, and the onset of sound can also tell you what the problems with somebody's instrument are. So a hard glottal attack, as my friend at the uni says - he calls it “clubbing baby seals”, he hates it when he hears [makes sound] with the bow [laughs].

Facilitator: Oh, right [laughs].

Interviewee: Yes. So that's the equivalent of glottal onset, which is a very harsh closure of your vocal folds. A breathy onset, which is the polar opposite and equally not great, is the equivalent I guess of a kid first putting their bow onto the string and there'd be [makes sound], very unclear. When you're starting to sing what you're wanting to have is what we call a thin edge of vocal fold, which if you've got a glottal attack it's a thicker edge of vocal fold. It's the amount of vocal fold that actually comes together. This is where I don't know with stringed instruments, but if you were wanting a very sweet, clean attack, how much of the bow do you put onto that string at the beginning of the phrase? If you're wanting a big thick attack, an attacca (?), you'd be using more width of bow? What are you doing?

Facilitator: Yep, you can use more width of bow. It's more to do with...

Interviewee: The actual strike and pressure.

Facilitator: ...the pressure of the strings. So talking about the breathy sound that you were talking about before, if you used your bow with no pressure at all you'd get that kind of wispy....

Interviewee: Reedy sound.

Facilitator: ...reedy kind of sound, and if you put a lot of pressure then obviously...
Interviewee: You've got pressed phonation.

Facilitator: ...the bow gets kind of stuck.

Interviewee: The absolute equivalent with singing is two Johan Sundberg terms, pressed phonation and flow phonation and breathy phonation. So pressed phonation is your Heldentenor sounding like he's going to the toilet as he's singing. That's too heavy, so there's hardly any movement, and no rosin probably. Breathy phonation is the kid [makes sound], reedy. Flow phonation is where you've got the greatest ease. Funnily enough, people who want to sing really loudly can go into pressed phonation but they have less decibel than those people in flow phonation in terms of beauty of carrying power within a theatre, there would certainly be an equivalence there. I'm sure that if you've got a very aggressive bow on the string the carrying power as a solo instrument in a concert hall probably wouldn't be as great as the flow.

Facilitator: Exactly, yep.

Interviewee: So that's a certain absolute equivalent.

Facilitator: You also have this idea of wanting to join the sound that's, philosophically, already happening. Do you know what I mean?

Interviewee: Yes. It's part of the up bow, part of the lifting - hang on. For us it's a part of the inhalation.

Facilitator: That's right, yeah.

Interviewee: Which always comes too with many singers who have not played in an orchestra, they don't inhale. Now, this will be anathema to you because you've played in an orchestra, you play in a string quartet even more importantly, or play chamber music, which is reliant upon everybody coming in at the same time via that partially auditory, partially visual, partially extra-sensory perception cue of up-beat down-beat. Does that make sense?

Facilitator: Yeah.

Interviewee: Now, the stringed instrument is the most beautiful one to give us the indication of what inhalation is. I would also say that any string player worth their salt always inhales and
then exhales as the bow comes down. Rostropovich recordings [laughs].

Facilitator: Yeah, it’s all over the place [laughs].

Interviewee: Certainly in your chamber music you’ll all be breathing in and exhaling as one as well.

Facilitator: I guess sometimes more consciously than others but it’s true.

Interviewee: Oh, it will be there subconsciously certainly, yeah. With people who are not great players, they’ll be holding their breath, for sure. So it has that absolute equivalence of what comes before it because what comes before that onset of sound is everything in anticipation of what the upcoming phrase is. So it’s the intention; that is part of that moulding. I told you don’t get me started on this stuff; I love this stuff. Do you use a thin edge of bow ever?

Facilitator: Yep.

Interviewee: Do you use it for soft playing?

Facilitator: Yeah. If you’re wanting to get more subtle colours. Often as a default we use a slightly tilted bow hair to the string because you don’t - it’s easier to get a softer edge on the attack and on the sound.

Interviewee: So you can have a very clean attack with that narrower edge.

Facilitator: Mm.

Interviewee: Will it always - hang on, let me start this again. If you have - if you’re using more of the width of the bow hair, is it harder to get a clean attack than a narrower width if you’re - not you necessarily, someone less experienced perhaps?

Facilitator: I think it’s probably - on a stringed instrument it’s probably easier to get a clean attack, a harder attack with more bow hair on the string. You’re more likely to get a softer attack I guess with less hair on the string.

Interviewee: Do you know makes loud and soft with singing?

Facilitator: Well, it’s not my area of expertise, but...

Interviewee: It’s not a trick question, because I can tell you. I was just enquiring, do you know what the difference is, physically?

Facilitator: I feel like it’s something to do with the support that you have low down.

Interviewee: It can be, yeah.
Facilitator: But also as you were saying before, it's not necessarily just a decibel thing but it's a frequency of vibration thing, it's something that, the quality of the sound...

Interviewee: All right. I'll give you a quick lesson in this lot because there are huge equivalences I think here, or good meaty bits. If my hands are two vocal folds, they're vibrating here, subsonic we would not hear this, this is definite elephant territory, or blue whale territory. Blue whales are the same; they can be heard for thousands of miles underwater. Anyway - with their little - anyway. So if I - this is my vibration per second that I'm tapping and my - for your tape - I'm undulating my hands together looking like an anemone. So if you're looking at how much time my hands at some point are touching, it's greater than when they're not touching. So I keep the same vibration per second and now I'm just touching fingertips together, they're apart more than they're together, aren't they?

Facilitator: Mm.

Interviewee: Yeah? This, where I've got a greater closed phase, which is some part of my vocal fold is touching for longer, is louder singing compared to a greater open phase, which is soft singing. Less vocal fold touching is softer singing. Less bow can be softer, yeah?

Facilitator: Yeah, okay.

Interviewee: There are variations within this theme; that's a black and white thing. There are many, many things that can happen. If I've got this thick edge of vocal fold and I'm increasing the vibrations per second going higher and higher and higher and higher, there comes a point at my passaggio where it's a fat ballerina doing a pirouette, it gets very ugly and you're going to have thin out the ballerina if you're going to have vibrations per second increasing going higher in pitch.

Facilitator: Sure.

Interviewee: Range will affect thickness of vocal fold as well as dynamic. The higher you are the thinner the ballerina has to be because the vibrations per second are increasing. The lower you are you can have fat dwarves everywhere very easily. What's hard for us is high soft singing; it's much harder to do than high loud singing. Is high soft playing harder to negotiate than high loud playing?

Facilitator: Yeah, a tricky one. Not necessarily but...

Interviewee: If you haven't got a nicely...
Facilitator: But in terms of - yeah, it's much easier to make a scratchy sound and an unpleasant sound I guess if you're trying to use a lot of weight at the top of the instrument.

Interviewee: Yes.

Facilitator: It's always a balancing act with string playing between the pressure or the weight that you're putting in the bow on the string and the speed of the bow, so I guess that relates to flow of air.

Interviewee: Right, so the higher we sing you need greater air pressure and greater air flow, so there's a lot more use of air.

Facilitator: Also the position of the bow on the string compared to the length of the string. So if you're playing way up high, you've got a tiny length of string so your bow is going to need to be closer to the bridge to create a...

Interviewee: Oh yeah. Got you.

Facilitator: I guess the position of the bow on the string is to do with how - I don't know exactly how it works but it's harder to move the string the closer you are to the bridge. It's really easy to move the string about halfway down the string length, but you don't get a very good sound, so it must affect somehow the amount of interference of the vibration or something like that. I'd have to look into it more.

Interviewee: It's quite interesting. So if we're doing - one of the things that's looked at as being - hallmarks of good singing technique will be an evenness of sound from bottom to top, which I think you're saying you pretty much - or you do a variation of that when you're talking about frets. If we've got lots of frets we've got registration problems.

Facilitator: Yeah.

Interviewee: Maybe. I don't know.

Facilitator: I guess so. I guess I was just meaning that you can actually do...

Interviewee: Slide.

Facilitator: ...things like portamento without...

Interviewee: So evenness of sound from bottom to top. The way we get that is to not change the shape of the instrument. We keep the same larynx position, relatively, and that we have to control our airflow or bow speed across the range. We also need to be able to crescendo and diminuendo doing a messa di voce very easily, which is being able to smoothly go from -
if we're going pianissimo to fortissimo, pianissimo - to smoothly go from thin edge of vocal fold, fattening, fattening, fattening to the thickest and then to relax the vocal fold again into the thinnest, or the body of the vocal fold that is, and to do that on any pitch: really hard. Yes, it's always, as you said, getting that equivalent between what you're doing with your bow arm in relation to what you're doing with your left hand the whole time and everything is always changing. If you are wanting - talk to me more about bow speed. Why do you change bow speed?

Facilitator: You change bow speed to affect the timbre of the sound.

Interviewee: So if you're increasing bow speed, what is the effect on the timbre?

Facilitator: An increasing bow speed will get you a louder - it will get you a more resonant sound in certain circumstances, but if you've got too little pressure then it gets you a sound with no core. If you've got too much pressure then it won't connect with the string properly and it will create a very ugly sound, so there's a balancing point there I guess. You can more easily bow faster further away from the bridge because you don't have as much resistance so it's much - when you bow closer to the bridge you often need to use less speed of your bow to counter the resistance that you feel near the bridge.

Interviewee: Yeah, up near the bridge is definitely passaggio area. As you're talking that I'm getting - okay, so tell me about how bow speed relates to vibrato.

Facilitator: Bow speed to vibrato.

Interviewee: Is there an equivalence there? Why would you want to increase bow speed? Let's say you're working within an octave and you're wanting to increase bow speed, what are some of the reasons you'd be wanting to do that? If you're in your sweet spot for the cello. So you want to build more resonance; would that be...

Facilitator: Basically - yeah, it's to do with - all of these factors, the position of the bow on the string and the bow speed and the weight are all to do with subtle changes in timbre.

Interviewee: So would there be - would you be doing subtle changes with your vibrato speed along with that?

Facilitator: Yeah. You would change your vibrato in conjunction with what you're doing with your bow, and I guess a lot of emphasis is put on the independence of the two hands, but in effect when you're playing a piece you have to match one to the other.
Interviewee: Yeah. So with singing, the first time I started actively getting singers to use vibrato was teaching Caitlin Hulcup, the aforementioned viola player, many years ago, probably 15 years ago. Huge, huge, huge difference with then starting to tell singers to vibrate. Vibrato for us is the walls of the pharynx undulating; good vibrato, healthy vibrato. Slow vibrato is too much work at the vocal folds and not enough air coming through the vocal folds, too much subglottic pressure, not enough flow, which makes too much tension in the muscles around the vocal folds.

[Aside discussion]

Interviewee: A nanny-goat vibrato, eh-eh-eh, you know, one of those, is a different sort of tension again. Certainly you will have an equivalent, presumably with tension in your arm and your wrist with vibrato, et cetera. Now, if you - the number of vibrations per second with the human voice, I can't remember the actual number, they've worked out that it's something between 6.5 and 7.5 vibrations per second is what the human ear likes to hear with the voice. If it's slower than six, and faster than, the human ear doesn't like it much. So there's an actual kind of thing there. It would be interesting to see if there were an equivalent with a stringed instrument, which probably is going to be slightly different depending on...

Facilitator: The pitch of the sound.

Interviewee: Yeah, something. The violin, high, soft, Beethoven violin concerto, very fast vibrato, narrower and faster, Bruch violin concerto down low, big fat G string, [makes sound], slower vibrato, wider vibrato. Certainly there is also an equivalent with that with singing that if you are wanting to sing softly or if you're wanting to sing - oh well, let me go back. Sorry, I'm getting all these ideas and I can't articulate them. Messa di voce - how I get a kid to learn to do a messa di voce is to make sure that when they're singing softly is to have a very fast, narrow vibrato. When they go louder let the vibrato loosen a bit so it's a bit slower and it will go a bit wider and then back to narrow. Is there an equivalence with you there?

Facilitator: Yeah, I think so.

Interviewee: So then what happens is that if you want to have something that sounds disembodied, you're singing about - for instance, Turn of the Screw or something and there's little boy Miles singing - Miles is a boy soprano but he's not going to have vibrato, so it has this disembodied feeling of - spectral quality, if you like. Vibrato I always think of as being the human element that comes in to warm everything up, to
make it a greater and a richer acoustic quality and resonance and it’s the thing that shows emotion. Straight singing cannot show emotion in the same way in my books, it’s a different quality.

Now, if you’ve got - the way I get people to find vibrato other than just saying ‘vibrate your sound’ is by getting them to breathe in feeling like they’re about to cry and then singing as if they’re about to cry. What that does is physically it lowers the larynx but it also tilts the larynx, so there’s more anterior-posterior depth in the instrument rather than just being that shape, you’re getting more of that shape in the throat, and also within the larynx itself. What happens when you bring that crying in and you’re adding vibrato, is there is much greater acoustic quality. It’s a thing that kind of makes the heart go, which also is the thing with me with great cello playing, it touches your heart in a way a flute cannot do it to me.

Same as coloratura can’t do it for me in the same way. I can be awed with them, and think “that’s very exciting” but where I’m going to get moved is with the lower resonances, also the lower voice types, the lower instrument types that have slower vibrations per second for each pitch compared to your piccolo and your flute, but also they can hit me in the heart more, and I’ve just done this full big circle around because I keep getting ideas, and verbal diarrhoea. Vibrato is a huge thing for both and without good vibrato for singing you’re up shit creek, and it has to be constant, and it’s always fluctuating depending - if you are singing about something urgent your vibrato has to speed up. If you’re singing a lullaby the vibrato is not going to be fast. It’s a complete link between the emotion and what the vibratory rate is, but it’s also linked into music, when you’re getting towards a climax of a phrase it is going to increase. It’s also going to increase with dynamic.

Facilitator: That’s interesting. Were you not saying that when you do a mezzo di voce...

Interviewee: Messa di voce.

Facilitator: ...you start...

Interviewee: Yes, you can.

Facilitator: You start with narrow vibrato and you get - I’m sorry, not narrow but...

Interviewee: Yeah. No, narrower and faster, yeah.

Facilitator: Then as you increase volume you slow the vibrato down.
Interviewee: A bit. This is fractional.

Facilitator: Fractional, yeah.

Interviewee: And wider.

Facilitator: Yeah, but then when you get to the peak of a phrase, which is often the loudest point...

Interviewee: The loudest part.

Facilitator: ...you want the sound to be more intense, often.

Interviewee: Yeah, so you probably are going to be - that’s going to be to do with the edge of vocal fold. High point of phrase is a thinner edge of vocal fold, as is soft singing. So you get all of these cross things like your left hand and your right hand, and I guess I’m saying gross black and white statements as well. The thing about messa di voce, it’s what I use for my first year students, that’s when I’m teaching them how to sing loud and soft. It takes many years to be able to do it easily.

[Aside discussion]

Interviewee: One of the best examples is about circa 1965, Joan Sutherland recording from an album called The Art of the Prima Donna, she was about 35. It’s her at her zenith, before the vibrato slowed down. So La Traviata, “Ah, Fors’e lui” and “Sempre Libera”, at the end of “Sempre Libera” there are a whole stack of top C’s repeated, and if you listen to it with singing teacher ears, or your inquiry ears at the moment, you hear a really fast vibrato rate. Top C, the climactic exciting part, and it is loud as well [sings], incredibly fast - middle register not that intensity of vibration. Yeah, it’s quite interesting.

Pavarotti, by the bye, was known to have a very fast vibrato but it was also very wide, wider than normal, faster than normal. So those two things almost - they balanced it out, but what you got was something that shimmered, and if you haven’t got vibration you have no shimmer on the sound. Did I answer your question from before?

Facilitator: Yeah, I think so. It was just what was your response to the statement, so I think that’s pretty much answered, unless there’s anything else you’d like to add.

Interviewee: Ah yes, portamento, very interesting. A lot of the time, getting a singer to sing legato without portamento is really hard, and of course if you’re singing Bach you don’t want to be doing massive portamentos all over the place. So I talk with them about - it’s also keyboard playing that you could bring in - how does a violinist, or in your case a cellist, play
legato if you’re not having portamento? What are the things - you tell me, what are the things that you need to have? A great bow arm.

Facilitator: Yeah [laughs].

Interviewee: So great air, yeah.

Facilitator: Yeah. You need to shift quickly and lightly, generally, and...

Interviewee: And you don’t lift a finger off until the next one’s going down.

Facilitator: Yeah. There’s a couple of ways that you can do it. You can shift on the finger of the note that you start on and then put the next finger down when you get to the top, assuming you’re shifting upwards, or you can replace the finger that you’re going to be shifting to and then shift to the note...

Interviewee: Interesting.

Facilitator: And it gives you a different arrival quality.

Interviewee: Fascinating.

Facilitator: Yeah, but that’s because you’re not hearing [makes sound] or [makes sound], like that. It’s a very inaudible, it’s a very subtle kind of thing, but one is like a softer landing and one’s an articulated landing, I guess.

Interviewee: Fascinating. So you are doing a walking marathon, not a running marathon, when you do that. So walking - definition - is there is always one foot on the ground; running...

Facilitator: Yeah, that’s right.

Interviewee: You’re no longer legato when you run.

Facilitator: Exactly. You never - well, you...

Interviewee: Or ice-skating, portamento. Would that be correct?

Facilitator: Well, when you do portamento you’re still connecting your finger to the string.

Interviewee: But you’re sounding it.

Facilitator: But it’s a much more deliberate and even and slower thing, so that you can hear it, and you also, with the bow, you actually lighten off the bow a little bit when you shift between notes if you don’t want the sound to be heard.

Interviewee: Wow.
Facilitator: It's a very slight thing, because you obviously don't want a big gap between the notes, but you don't want to hear that [makes sound].

Interviewee: Yeah. Wow, that's great. I like that, how you say about the continuo, close relationship, that's great. Look, I guess the only thing, does your masters topic absolutely rely on you saying that there is more relationship between the cello and the voice than the other stringed instruments?

Facilitator: No, not necessarily.

Interviewee: Just simply from having my lecturer head on, you might like to not get yourself boxed into that corner.

Facilitator: Yeah.

Interviewee: So you use the generic cello, because you're a cellist, but...

Facilitator: Most of the techniques are general to strings.

Interviewee: Are general things. You might like to differentiate that a little bit or explain that when you're talking about cello it's because you're a cellist.

Facilitator: Exactly.

Interviewee: The dimensions of the instrument stuff I think is good and you can say - but I would take that as a personal thing, that you are saying 'I feel blah-blah-blah-blah, the size of the cello, and because I'm a singer', rather than saying it has to be this.

Facilitator: Oh, absolutely.

Interviewee: All righty. What else did you have there?

Facilitator: You said before that you aren't a string player but I was wondering whether you play any other instrument.

Interviewee: I play piano, percussion instrument.

Facilitator: Did you learn the piano from a very early age?

Interviewee: I started learning formally when I was 12 but I had been - they tried me at five, because I was always at the piano, but yeah, five was not a good age for me to be learning piano in a formalised sense. So I went back to it when I was 12.

Facilitator: And you were already singing by then?

Interviewee: Oh yeah. Yeah, I was singing with that aforementioned Joan Sutherland recording at five, I was absolutely - that was my favourite piece to play.
Facilitator: There you go. I was just going to ask whether you feel that that experience with the instrument has, throughout your learning I guess, one has influenced the other, or whether your experience with learning an instrument and learning voice has - whether there's been any kind of cross-pollination there, I guess.

Interviewee: Yeah. Huge, I think. What happens with - when I get singers or young first-years coming to learn singing, one of the things I ask them is what sort of - do they relate more to harmony, to melody or to rhythm or are they more text monsters. Melody will be the number one thing, text will be number two, harmony will be number three, much rarer, and the rarest of all will be rhythm, and I've probably only ever taught about three or four rhythm monsters.

Facilitator: What distinguishes that kind of mind... just out of interest.

Interviewee: The rhythm monsters are anathema to me because I don't get them because I've always been bad at rhythm, always will be bad at rhythm. I have worked very hard at it so I'm adequate [laughs]. Josh Bloom, aforementioned cellist singer, is one of the rhythm monsters, and another one was a girl called Jess Aszodi. I don't know whether you ever came across Jessica. Both of them are very comfortable with new music, new classical music, Jessica particularly but she goes out of her way to learn incredibly complicated rhythmical structures so that she can do anything that's shoved in front of her; gets joy out of it.

What always - Jacob Lawrence is another person I'd say who's got this element. What happens is when they're singing - well, I've seen them, in Josh's case and Jessica's case, hold whole operas together and ensembles together by being drivingly rhythmic when what was happening in the pit was not great. So that whole - the orchestra and the singers together, which was quite remarkable. I don't know whether they realised they were doing that. I also hear the way they inhale is so much a part of - and Jessica doesn't play another instrument. Josh I could say it's because of the orchestral background, but there's a rhythmical inhalation that's vibrant and part of the upcoming phrase. There's that - that every consonant is before the bar line rather than with the bar line, which most singers are. If you're fractionally before that bar line that will give you that forward impetus. If you're too much before it then you're rushing.

Most singers being melody beasts or text beasts will be because they haven't played an instrument, or the instrument they've played has been AMEB solo stuff and they haven't been part of an orchestra. The harmony people are actually
the pianists, the ones with the piano background, so I relate most to harmony. I relate to it all now because I'm old enough to have done my homework, but I'm talking more when I was younger. The other harmony people are those who've played AYO since they were 12; that kind of thing, who actually get what their part of that greater whole is. This is the major, major problem with most singers is that they haven't had that experience. So a string player with that experience who's a singer is always going to excel more so than others, generally.

What was your question? Oh yes, the instrument. I remember getting excited about harmony playing the piano when I was a kid. I didn't know that's what it was, but anything to do with a sequence as a kid I started to get excited. That meant Bach, it meant Mozart, it meant pretty much anything but often you will see those cascading sequences in Bach and Mozart, but also then I remember when I first heard Chopin F minor piano concerto, cascading sequences, thrilling. I'd get so excited. Then the same thing would happen also with - what's the musical term, dissonances created by suspensions; that would get me excited. It didn't matter whether it was singing, or an instrument, it was actually the harmony that got me going.

I do think piano fundamentally is probably the underpinning of everything I've done in terms of the harmony because I did listen to orchestral music - aforementioned Chopin piano concerto, probably I would have been late teens - but I never heard proper orchestral music until I lived with those boys. That's when I remember Bach Double Violin Concerto being practised and I was just getting so thrilled by that Concertante with Brett and John playing, Mozart Concertante, so thrilled. Again, to do with sequences and interweaving melodic lines and what was happening in the harmony. That was a major, major, major influence, was being exposed to the whole rehearsal process.

There was also a string quartet that Brett and John and Chris - was it Chris? No, Chris wasn't in it. Another guy called John Napier. Rosie Hunt at one point too. They'd practise in the lounge room, so I'd hear this, so it was a huge massive, massive thing. John was an excellent pianist as well, so that's where I heard all of the Bach Preludes and Fugues a lot for the first time, I'd only ever played a little bit.

Facilitator: Do you use or did you use any ideas of the physicality of making sound on the piano, which is obviously quite different to singing, in your singing practice?
Interviewee: Yeah. It’s an interesting thing because one of the things, if you’re trying to get a - at the time you mean, or now?

Facilitator: Well, either.

Interviewee: I used to play all of my melodies and things. I’m not a pianist as such but I did AMus level, so I’m relatively confident with most stuff but it’s not what you want to listen to the quality of, closely to. So it was a great tool to aid me. I would get a sense of the harmony through playing the odd bit of it. What it did give me was a sense of a horizontal plane rather than a vertical plane, because when you’re looking at music you’re working with up and down. If you’re wanting an even sound from bottom to top and you have not played an instrument, your whole being is telling you that lower is down here, higher is up here.

If you’ve had the misfortune of going through Kodaly thing with being in a choir with that hand going up and down, then you’ve got very little hope of having an even sound from bottom to top because your larynx goes up and down and up and down and up and down with pitch, therefore you’re changing from cello to ‘Chinese knock-off of kid’s violin’ very quickly. It gives you a sense of a horizontal plane. The other thing, I remember when I was around about 20 I was teaching piano, trying to get some extra cash. I taught - I would say had the privilege of teaching a little boy who’d never touched a piano before and he didn’t know the right hand side was higher than the left hand side. I thought ‘Oh my God, that’s learned’ because I’d been playing since I was - could go tap-tap from being this tall. All of these things are learned.

Facilitator: Yeah. I’ve had the same experience.

Interviewee: Have you?

Facilitator: Yeah. The first - I’ve only ever taught one piano student actually, and they had the same thing. They were like ‘Well, it’s not obvious that this is high and this is low’. I just didn’t know how to - in fact, that was my very first student of any type so I had no idea how to handle that [laughs].

Interviewee: Yeah, it’s weird, isn’t it?

Facilitator: Yeah.

Interviewee: All of these things that we’ve learned. The other thing, I think - funnily enough I think probably piano is easier to teach legato singing via, because to play legato on the piano, you can do what I do which is you shove the sustaining pedal down and you leave it there [laughs]. Or you can actually
really get that sense of walking, so that you don't sing the next word until you've finished the word before. You don't put the next...

Facilitator: Finger down, yeah.

Interviewee: So getting a non-pianist at the keyboard and saying ‘Okay, now play me five notes legato’, and they'll be able to hear that it's not. Now, what do you have to do? Now get up there and sing it. That can work if they're a kinaesthetic learner. It's not for everybody.

Facilitator: I'm interested in the students - you talked about this a little bit before but the students who have been instrumentalists and I think you've made it fairly clear that there is an advantage to having an instrumental background in your practices as a singer and in terms of learning. You have had cellists as students as well?

Interviewee: What I'm going to do, I'm not being rude, I'm getting out my phone and I'm just going to go look through and tell you who's done what instrument, because I always find out, it gives me a very good idea about how to approach them, also whether they've been dancers or not because that's got a huge influence on being - or any kind of athlete, because I use a lot of sport with teaching singing in terms of analogies. Anything that people have done at a high level certainly can be used. I'll get to the student file and I'll just go through one by one and tell you. Of course they're not quite in order. Obviously Miss Yelland, how did you first come across Soph?

Facilitator: I actually went to primary school with her. She was a year or so below me.

Interviewee: Anna-Louise Cole, very good soprano, coloratura, cellist. Anna O'Byrne, great singer, now star of London West End, 12 years of violin. Lots of them have done piano in the past, I'm just trying to find the ones that have got the - now, here's an interesting one. Jacqui Porter who is a really, really good high level singer, I don't think is an instrumentalist, much of one. Janet Todd, 12 years of violin. Great singer, Janet. Jess Aszodi again the exception, not an instrumentalist in the past. They can work out melodies now on piano but they came to it later. Katie Radcliffe, very, very good coloratura, high level flautist.

Another high level flautist who comes to mind, she used to do TSO. Coloratura soprano, Sharon Prero, she's a professional singer. For instance, Katie Radcliffe, amazing at runs. Anybody who is amazing at runs either has a background doing Middle Eastern singing or has probably done
something like flute. Katrina Holmes - oh no, not that one. One of the other ones that come to mind - it's funny, I've actually forgotten a lot of these. Nicole Carr - oh no, it was Barbara Zavros, saxophone. What was Nicole? I can't remember. Tom Dalton is a very good pianist. I can't remember the others ones, that's very silly, I've sort of lost track of - I used to know all of these things and if you don't use it, it goes. Does that give you a bit of an idea?

Facilitator: Mm.

Interviewee: Yeah, but quite a few of the singers have not had instrumental backgrounds; makes life a lot harder, that never have the true instinct for it.

Facilitator: Instinct?

Interviewee: For music.

Facilitator: For music? Generally, music?

Interviewee: Yeah. Yes. There is an exception to this clause, Michelle McCarthy who's just - she graduated last year, she's at Oz Opera's Schools Company now. She had never played anything. She went into - when we still had a preparatory course for VCA, then they canned it the year after, Michelle went into that, she couldn't read music when she went in and she's one of the best musicians I know. It was all there, it had just never been formally trained.

Facilitator: Just waiting to be tapped.

Interviewee: You're so far behind as a singer anyway, because vocally you're still growing when you're in your twenties, unless you're a high voice collie or something. If you haven't had the background in music in some form you're just - you're behind. It's too competitive. There are exceptions but in general I would say that's the case.

Facilitator: Okay. What are some of the ways that you as a teacher approach instrumentalists who are learning to sing?

Interviewee: The string players are the biggest pains in the arse. They are, because they're obsessed about tuning, and you can't control tuning in the human voice through listening, because if you listen, once your voice comes out of your mouth it has to go forward, hit a wall in front of you, come back and by that stage - then it's got to go into the auditory tube, get processed by the brain, it's about the amount of time when you get an echo on a mobile phone every now and again.
It means that you're in past tense; you cannot have airflow if you're listening. You cannot have direction in a phrase and have a musical if you're listening to something that needs to do that. If it's under your ear or if it's down here it's different. What you do is that you get a sense of hearing the thing between your ears as to what tuning is, but tuning in the human voice is purely technical, it's got to do with tongue position, if you're pressing the tongue you'll probably be flat. If your tongue's really high and you've got a tight jaw and you've got a really high air pressure you're probably going to be sharp. That's the hardest thing to kill out of...

Facilitator: With string players?

Interviewee: Yeah. Well actually, virtually any instrumentalist but particularly string players.

Facilitator: Do you think that's because the sound is generally made outside of the body?

Interviewee: Mm.

Facilitator: With piano you're striking keys, you're hearing the strings do their thing with, obviously, the string instrument. With things like oboists and flautists and wind players who have a similar - I guess the sound is made outside of the body, it vibrates outside the body but there is some connection with the head.

Interviewee: Yes.

Facilitator: Do you find that less the case or do you find...

Interviewee: I think the most neurotic are the string players. What happens - the worst are the ones with perfect pitch of course. Any singer with perfect pitch is really going to have trouble. Yeah, the string players, they're the worst.

Facilitator: You obviously do make analogies depending on the...

Interviewee: All the time.

Facilitator: Yeah, depending on the instrument or the background of the student.

Interviewee: Yeah, but I'll make analogies if they are a juggler. So it's whatever the dominant thing they've done is.

Facilitator: Okay, cool. I wanted to also talk about the physicality of the exercise. Given your background in Feldenkrais and the physical aspect of what goes on, in terms of exercises that might be useful for string players, for cellists, that come from singing or...
Interviewee: I will get any singer at some point to mimic - putting their hand up doing vibrato for a violin, or it can be cello. It’s a little easier for them to hold an arm like this than actually the cello for a lot of them. I get them to see the speed they want to have this vibrato go at and physicalising it like that will promote a change. I will get them to bow but it is much better if they’ve been a string player. If they’re bowing they’re going to shape the phrase properly.

I get them to mimic - to either play it through on their instrument at home, how do they do it on their instrument, because undoubtedly if they’re a string player they’ve been doing it for 10 years, so much longer than they’ve been learning singing. So it’s innate. They may not be good or understand how they do what they do but there’s an innate learning there that can transfer over into singing. Or I can get them miming playing part of their piece through without singing but looking at the music and then miming it as they sing.

Facilitator: Playing as they sing.

Interviewee: Yeah.

Facilitator: That’s really interesting because as string teachers we often…

Interviewee: Get them to sing.

Facilitator: …get them to sing, and that sometimes bypasses certain instrumental things which get in the way of phrasing and intonation…

Interviewee: You’ve got definite, definite habit roots that you can bypass, or you can get the right habit root via - in the case that I’m using - via another form.

Facilitator: What do you think about the actual muscular involvement? Given that you’ve never played a string instrument, but you can imagine I guess, given your experience with string players and also with the physical activity through things like Feldenkrais, the actual physical musculature involvement of the two, of singing and string playing. Can you shed any light on whether there are any similarities or connections there?

Interviewee: Sometimes I’ll get really passive singers in - younger ones, who are highly un-energised. Now, I’m sure you can have an un-energised string player, but there is an immediate sound from an un-energised string player that would say “This is bad”, that they’re more likely to realise is bad, than an un-energised singer. They can be absolutely and utterly in denial that what they’re doing sounds really bad. So in order to lift a bow and in order to hold an instrument - I’m not talking so
much cello here because you can - but if you are holding a violin, or a viola, and you have to raise a bow, there is energy that’s needed, and that energy is all towards timing something to come in at a particular time, which is what we don’t have as singers but we should have, because our ribs all have to move.

If you’re actually lifting your arm up to place it on a bow or if you’re - you have to move ribs to do that. So that will be helpful if I’m getting somebody to mimic putting a bow on a string; it will make their ribs move, which will make them inhale more and it will be more rhythmical. They will breathe in more rhythmically, they will come down and sing more rhythmically. The actual activity of moving arms that you’ve got is enviable for singing. With singers I will often have to get them to do a lot of stuff to release shoulder blades, to release all of that rotator cuff area, in order to be able to get movement in the upper ribs.

I once had a bagpipe player; I didn’t know he was a bagpipe player but what I did know was that he was incredibly tight with his upper ribs and I couldn’t get them moving. There he had been [makes sound] squeezing the bag. I’ve actually had two bagpipe players when I think about it [laughs]. In terms of the actual - I believe that most of the instrumentalists I’ve had that are either the string players or the wind - the high flow wind players, which is not the oboe or the bassoon, they’re much easier to teach singing to because there is a sense of flow and direction in the phrase. You get it through your bow arm, they get it through their air.

So there is an equivalence in the working of the body in that way. I believe very much so, as I said before, that really great string players are inhaling and exhaling in a very - hate this word, but I’m afraid it goes - organic way with the ebb and the flow of the music, and I believe that you’ll be using your belly in a similar way. There’s a groundedness too - when you look at orchestral musicians, a good orchestra sitting there, there is a groundedness to those players that you will not get when you look at a choir, a really good professional choir sitting there. They have to be - their instrument is making them one with the seat, but I’m thinking of the string players. I can’t see the woodwinds behind, but there’s a beauty and a fluidity to the movements of the bodies with their instruments that we don’t get in general with singers.

Facilitator: Interesting. I was just thinking about things like Wagnerian singing where you just - at least to my...

Interviewee: You’ve got to be really strong.
Facilitator: From what I've seen, basically you have to stand there and be incredibly well-connected to the floor [laughs] to actually be able to do it.

Interviewee: Yeah, they do.

Facilitator: You just get this sense when you see them sing of incredible weight and strength down...

Interviewee: Potency and that's years of work. It's partially the - for those voices to get to that stage is a lot harder work than for a light soubrette soprano. A soubrette soprano can be fully-formed at 21. Wagnerian, really good Wagnerian singers are only starting to get fully-formed at around about 40, so you double the age. The more dramatic the voice and also the lower the voice, the longer it takes. So you can have voices that I don't like that are getting a lot of really top work but they tend to be of the lighter-voice type category. They're voices that are not necessarily connected to a body. It's not the whole body making the sound, it's from here up. To me it's a two-dimensional sound, but it's high, light, pretty, can sing fast. The tradition – well, what makes more of a Wagnerian and dramatic sound cannot be done unless you attach a body to it, and that's at the accepted sound quality that people are after. What I want is no matter the voice type, there's a whole body connected to it so you get a three-dimensional sound that is interesting across a range, that's potent and powerful and not just relying on being cute. Does that answer your question?

Facilitator: Yeah. That's great. Just a couple more things. I was going to ask about your experience with working with cellists in terms of performing concert music or opera and oratorio or any...

Interviewee: Cellists who now sing?

Facilitator: No, as in cellists playing the cello.

Interviewee: Right. Oh, as in when I've sung in the past with them?

Facilitator: Yeah.

Interviewee: Oh. Okay. That's actually a little - the only stuff that I've done with orchestra has been centred - I've done, in the dim dark past performed with all of the symphony orchestras, so that was Queensland – well, all of them, isn't that rude? WASO, the one down here - MSO, SSO and the Brisbane one. What's really terrible is I don't - that's when I was in my twenties and my early thirties - I don't have so much of a sense of the orchestra, more of the conductor.
Facilitator: Oh, okay.

Interviewee: Except for singing Morgen with Sydney Symphony and there would be - it's a Strauss song, beautiful violin solo, lead violinist playing it next to me. I remember being really aware of that. When you sing the sound comes out in - you know how you get the expensive seats in the house? That's because the sound radiates out in a cone. That's where my sense is; the conductor is there in my periphery but the sense is actually for the back of the auditorium and singing for the back row, and more that I'm riding on a hovercraft and the orchestra is the hovercraft.

What's beautiful when you sing with an orchestra, and if it's with a great conductor, somebody like Stuart Challender who was a great conductor, having sung with him once - is that it is effortless. You've got this hovercraft underneath you that's powering you with the person in the driver's seat and you actually are just part of it. I do remember various solos from behind me in woodwinds and various things. I haven't got a lot of memory of the cellos on my left, but that's generally because the conductor was between me and the cello section. I was never - I don't think I'd ever stood on the other side of the conductor, I think it was always on that side. Apart from that, then they were in the pit; when I was doing operas they were in the pit and I didn't see them. I didn't like that as much. I liked to have that surround sound behind me; that was a lovely feeling.

Facilitator: Being enveloped by the sound, yeah.

Interviewee: Yeah. It's like that when you're standing in the bow of the piano too, you're enveloped around by the piano, so there's that lovely cosseted feeling too.

Facilitator: Have you done any chamber music singing with the cello before?

Interviewee: No. Another Dean brother doing Ten Blake Songs for voice and oboe; that was about the extent. No.

Facilitator: Is there anything that you would like to add?

Interviewee: Don't you think I've waffled on enough?

Facilitator: [Laughs]

Interviewee: I can't think of anything.

Facilitator: You've been extremely generous. Great. Well, thank you very, very much for your time.

Interviewee: Please tell me you don't have to transcribe that waffle?
Facilitator: I will be transcribing it, or somebody will be anyway.
Interviewee: Pay somebody to do it.
Facilitator: Yeah [laughs].
Interviewee: They’re going to be a lot faster than you.
Facilitator: That’s what people have suggested, yeah.
Interviewee: Yeah. Certainly don’t do it yourself, it’s way too hard.
Facilitator: Cool.
Interviewee: Good. No, that was great.
Facilitator: Thank you, thanks very much.
Interviewee: Thank you. Let me write down what this is.

End transcript

Appendix G – Simon Wallfisch interview
This appendix contains a transcript of the interview conducted with Simon Wallfisch on the 7th & 8th of August, 2014 by Skype video conference. The specific questions prepared for this interview included:

- Statement about cello and voice? Agree/disagree?
- Background as cellist and singer – has one influenced/affected the other? Do you use aspects of one to help the other?
• Speech elements in string playing? Instrumental music generally? Rhetorical elements?

• Work as singing cellist - how did it come about? Repertoire, techniques used, etc – pieces written for you? Working with composers? Pieces you composed/arranged yourself?

• Teaching?

• Work as a cellist with singers – has your experience with the voice assisted you in this field?

• Any other comments/ideas?

---

Start transcript

[Part 1 – 7th August, 2014]

Facilitator: So first of all thank you for agreeing to take part in this research.

Interviewee: That’s alright.

Facilitator: It’s much appreciated. I would just like to gauge your reaction to the statement that I just gave you on your thoughts about the cello and the voice. Do you agree, disagree, any comments there?

Interviewee: I’m just looking through again. I would definitely agree with you. Obviously, I think the cello is a really sonorous instrument. I think every instrumentalist and every instrument is basically trying to emulate the human voice, but it’s also - in a way, if you think about when you’re playing, including the cello, it is basically a voice. It just doesn’t happen to be the vocal cords that are being activated by breath. It’s the strings being activated by a bow or whatever instrument it is.

I think one thing in your statement that I’m not sure I would agree with technically is when you say that the torso is a resonating cavity.

Facilitator: Right, okay.
Interviewee: Because if you think about - the only thing that has air in your torso is your...

Facilitator: Your lungs, I guess.

Interviewee: Is the tubes to the lung and the lungs, and the main - the actual resonators themselves is everything that is up here and obviously your pharynx and that, and the whole of the larynx and all of that space back there. It's actually a relatively small resonating chamber as opposed to a cello which has a huge big open hollow box, basically, with the sound resonating.

So it's not to be confused - especially as you are singer, I would just have a look up, maybe speak to a - I would maybe even perhaps as part of your research talk to a doctor, a voice doctor, an ear, nose and throat specialist, and ask them - or a speech therapist, voice therapist and ask them about that. Because basically the cello looks - it's got the similar sort of curves, but I would say it's actually got a much bigger resonating chamber than the voice, the human voice. So that's the only thing that – sorry, go on.

Facilitator: Sure, that’s interesting because a human singing can make a far greater sound than a cello playing. It must be a different way of using the resonating space.

Interviewee: It is, because also if you think about - we’ve evolved for millions of years. We’ve been evolving for a long time. The cello’s only evolved for a few hundred years and then it’s basically stopped short about, well, 200 years ago and then steel strings came along. Our voice is evolved to - to communicate, send alarm signals and all sorts of things over very, very large distances outside.

So the twanginess of an Italian or South American, or an American even, you know that kind of ‘Hey, how’re you doing? Oh yeah, all right’, that’s come from this very, very - and that’s what we use in classical singing all the time especially, because it’s that upper formant that only - do you know about upper formants?

Facilitator: I’ve heard the term before, yeah.

Interviewee: You’ve got to look into the singer’s formant, F-O-R-M-A-N-T because that’s what makes the human singing voice, the classical singing voice completely unique above any instrument that’s ever been invented. Because we have these - with the correct technique you’re able to cut right through an orchestra and it’s not because of volume or sound level, it’s simply the resonance.
This is suddenly a little beyond my knowledge, although I should know it, what the actual number is, of hertz, but you can look that up in two seconds, how many hertz a singer’s formant is.

You will see these graphs. When I was at college we had these lessons called - you can see how many I went to, I can’t remember the name of the course, but it was the technical aspects of the human voice and it was actually run by an ear, nose and throat doctor who was also the voice doctor for - he was in Leipzig, he was the consultant for the Leipzig Thomaskirche Boys Choir.

Anyway, he was a really interesting guy and he came at it from a medical standpoint. He showed us these graphs of sound and you could see an orchestral sound that all lived in the certain area of the hertz and then the singer’s voice, we listened to, I think, extracts of Pavarotti and various other singers and it just shot right above there.

Then he showed us the decibel level and it was right below. So there is no sort of - it’s not what...

Facilitator: That’s amazing.

Interviewee: Yeah, but the voice is so complex and I think what’s so thrilling - I was just thinking about this yesterday because I’m in rehearsals, I’m doing Werther by Massenet and we’re rehearsing in a relatively small room and the voices, they just penetrate you right through your skin, all the singers, and you just feel completely thrilled by it.

There’s a really thrilling quality and I think in the cello you can emulate that, but you can’t recreate it. There is definitely that feeling of - my dad, because he’s a soloist, I don’t know if you know Raphael Wallfisch, he always told me that he always tunes just ever so slightly sharp to the orchestra. There is a feeling that if you give a really good kick, especially, as you wrote, in the upper register, in the E above middle C in that area of the cello where you really can sing.

If you think about the last movement of the Elgar (cello) concerto [sings], anything in that area or the Dvorak concerto, the second movement of the Dvorak, that all lives in that really nice area where you can really kick on the bow and really get a good edged sound and singing quality. What you can’t do with a cello, whereas what you can do with the human voice, is if you are singing - I was doing a concert last night singing the Toreador aria (from Carmen) [sings] and it goes very low, right down to a bottom B-flat and you’ve got to
- but even those low notes have to have that higher formant resonance to be able to cut through the orchestra.

Facilitator: Yeah, yeah.

Interviewee: Hopefully they do, and it's not about singing that louder, because there's no way that I can beat a large orchestra in that register with my voice. No one can, but whereas if you're playing a cello concerto, you really have to negotiate with the conductor if you're playing down there, especially if it's in unison or something, that it's done with dynamics...

Facilitator: Yeah – I guess to project more or to get higher - to get stronger, higher partials in the sound you can bow closer to the bridge, but it's probably not quite the same thing. It's probably along the same lines though, right?

Interviewee: Yeah, that's what I mean with that sort of kick. You would bow closer to the bridge, you would play - you would probably use - you would change bow more often. There's this really funny thing where we were – Natalia Gutman was playing the Schumann concerto [sings] and we were watching the concert, I was sitting next to my dad and he couldn't believe it - she started on an up bow and she didn't change bow. She went [sings]. He said, that's just completely ridiculous...

Facilitator: That's amazing bow control.

Interviewee: Huh?

Facilitator: That's amazing bow control.

Interviewee: It's amazing bow control, but it's almost to the detriment of the sound and Dad would change bow nearly every note. You just have to have that big feeling of freedom and I think when I'm singing I feel that as well, that when - the same as changing bows a lot, you kind of - when I know it's going well, I feel like I'm in the front seat of a big truck that's hurtling down a hill, and the steering has come off in my hands and it's just going down the hill and there's nothing I can do to stop it. It's that feeling of breath and freedom, with the sound just pouring out with nothing - with no restriction, and that's the same feeling of lots of bow changes and yeah, as you say, nearer to the bridge but it's all in - obviously the same with singing, there's a point where you - and it's a very, very small point and that's why you have to do a lot of practise and work with a teacher regularly, that you don't go beyond that - there will be one straw that will be too many, do you know what I mean? That's the same with – well, in a way there are
parallels in everything in life, in music and also in other situations as well.

Facilitator: Yeah, for sure. Just in the interests of time...

Interviewee: Oh, sorry...

Facilitator: A fascinating discussion. No, no, it's great, but I just wanted to know your background as a cellist, growing up learning the cello and also singing, I presume?

Interviewee: Yeah.

Facilitator: I was just interested to know whether one had affected the other or influenced the other as you developed, that you...

Interviewee: Always.

Facilitator: Yeah?

Interviewee: Yeah, I never thought there was a difference. It was only people from the outside saying 'Oh, you're going to have to choose one of these days which one you want to do'. It was an odd thing to have to choose because I thought 'Well, it's all me. It's all my music. It's all my expression'. As soon as you start going to music college and that kind of thing, using words like 'I just want to express myself', all that stuff, you don't say that anymore. It sounds really pathetic, but for me growing up I was singing all the time and always - and even now I do, although I don't - my cello playing is now almost 98 per cent...

Facilitator: In the background?

Interviewee: ... connected with my singing, because I use it to do these shows where I'm the Singing Cellist and it's all - so I'm always either doing duets or I'm playing an obbligato to my singing or in concerts what I do in between the Singing Cellist stuff [is] I play a couple of solos, but even those solos would be an aria, like Pamina's aria from Die Zauberflöte or Lensky's aria from Onegin or...

Facilitator: Right, so transcriptions.

Interviewee: Or Rachmaninov Vocalise. So the whole idea is that it's kind of - I would always approach the playing as a singer. I always breathe and change bow as a singer. I always - especially when I'm playing, I would really - I always, especially if it's got words, if I'm transcribing an aria, I would really colour everything that I do and the bow changes and the phrase lengths according to the words.
Even when I was playing - and I still do sometimes, learning sonata repertoire or a concerto or something like that, I very often put words to it. I wouldn't necessarily tell anyone what the words are, but if not words, definitely a character and I always feel playing a Beethoven sonata or a Brahms sonata, that [sound missing] and it's so cool because I get to play all the parts. I get to reintroduce, not only with themes old characters or story lines, but you can have all sorts of situations happening and the great thing is you don’t have to tell anyone about it. You wouldn't write in the program notes those kind of things.

Facilitator: No.

Interviewee: It would come across in the performance, and that’s always just been my personal kind of approach. I remember talking - I was doing masterclasses [sound missing] a few years ago and I was practising slow notes and I told him “You know, I practise different vowels on the cello”. He looked at me very strangely and I said ‘I actually will practise an O, [vowel sounds], an A or an E’ and in a way you can - one wouldn’t from the outside necessarily be able to guess what you are doing, but the very fact that you're thinking about it in that way and changing colours like that is already [sound missing].

Another thing is, is to play a phrase in a different - I would always practise phrases according to [sound missing] how a tenor would sing it and I would play it how a basso profundo would sing it in the same register. It’s a completely different story each time.

Facilitator: Yeah, okay.

Interviewee: So yeah, I think I've always related it to the human voice, but I do it instinctively without thinking about it because for me it’s one of the same. I sing like I play and I play like a sing. That’s so cheesy, but I do really feel that. That’s why I have trouble - when I did a lot of orchestral work I had a lot of trouble stopping myself doing that because when you're playing a cello section with a lot of other cellists around you, you have to compromise a lot of stuff in order for the bigger picture to come out.

Facilitator: Of course.

Interviewee: So you cheat lines, you cheat bowing. You're so scared about intonation that you wouldn’t even necessarily play the phrase.

[Audio Inaudible, followed by Pauses/Aside Discussions]
Interviewee: How far did you get?

Facilitator: So you were talking about - are you there?

Interviewee: Hello, I’m here, I’m here.

Facilitator: So you were talking about that you put vowels to - you practised playing vowels, and then...

Interviewee: Also playing different – [unclear] a phrase...

Facilitator: Oh that’s right, as different voice types.

Interviewee: [Sound missing] different singers and the voice types, but actually, my girlfriend who is a baroque cellist just mentioned to me now as we were cut off that there are loads of treatises – I don’t know if you’ve read Leopold Mozart’s treatise on playing violin, some of the earlier treatises, that all talk about a string instrument being really totally connected to the human voice and the use of the bow as the voice.

Facilitator: Okay, I will look into it.

Interviewee: Also you should have a look - read some of those and also think about - I don’t know if you’ve got a Baroque bow or if you have access to one, and have a go. Do you ever play baroque?

Facilitator: I have a little bit before.

Interviewee: You should get in touch with my Aunty Rosie Hunt, Rosanne Hunt...

Facilitator: I actually played with her for a St John Passion not that long ago and she lent me one of her cellos.

Interviewee: So you played baroque then, did you?

Facilitator: I did, yeah.

Interviewee: Do you find that playing with a Baroque bow that it’s much more - in a way it’s more expressive. You can do much more in the bow than you can with a modern.

Facilitator: Yeah, there’s a kind of natural flow or something or a natural inhalation, exhalation idea that comes with the bow, yeah. Also the gut strings I think help that too in terms of the flexibility and the pliability, I guess, of them.

Interviewee: Yeah, okay.

Facilitator: So you don’t have much time left, but just back on your work as a...
Interviewee: I’ve got about 15 minutes.

Facilitator: Your work as a singing cellist, I was just wondering how that came about, firstly, and also - you’ve had some pieces commissioned for you, is that right? Or written for you?

[Pause]

Interviewee: Hello? Oh no.

Facilitator: Are you there?

Interviewee: I’m here.

Facilitator: I’m sorry, it’s my internet connection it’s not great.

Interviewee: It’s fine, without the video for me it’s easier. The whole anatomy of ‘The Singing Cellist’: when I was studying, I studied cello and voice concurrently at the Royal College, although I was offered ... all three London music colleges, to the Royal Academy, the Guildhall, the Royal College, and the Academy and Guildhall both offered me joint principal cello and voice, so to do it equally ... offered me a cello principal ... offered me double ... 18 to 21 I just...

Facilitator: I’m really sorry, Simon, it’s breaking up quite badly.

[Aside Discussion]

[Part 2 – 8th August, 2014]

Facilitator: So yeah, so when we stopped talking you were just beginning to say how you got to be doing your Singing Cellist stuff.

Interviewee: Oh yeah, how that came about.

Facilitator: Some of it was quite broken up, so if you could begin from the beginning that would be great.

Interviewee: I’ll begin from the beginning. How that started - I think - I always was singing anyway and I think that it was when I was at college, or it could have even been before, I think maybe when I was 16, 17, I was sort of, you know, I would find things that I could accompany myself on the cello. I think I did some Flanders and Swann or something, but then it really started when I was studying at the Royal College and I met a couple of composers there, fellow students, and it was just a bit of fun really. I said ‘Oh, go on, write me a piece for a baritone in cello’ and they did.

I had these two works, one that I did at my final recital as a cellist and it was a really big hit. It was by Max Charles Davies who is a Welsh composer. I think he’s still composing
now, although I never hear about him, but I think he's still
definitely doing stuff. Another one was by Christopher Mayo
who was, I think, a Canadian composer and they are both
very different pieces and they are both my own commissions,
if you like. I would like to commission again, but now you
have to pay, when you're not student colleagues anymore.

Facilitator: That's right.

Interviewee:

So that's how it started and then it also didn't - it wasn't
sustained at the time really because then I - this was - I'm
talking about when I was 22, 23 and at that point when I
started then really seriously studying singing, I actually put
the cello away for a little bit to really concentrate on singing
which was a shame in a way because I really, really missed it.

I made the mistake of following people's advice and they said
'Oh, you can't possibly do both things, it's not possible
because no one does it, therefore it's not possible'. So I didn't
play the cello really for about nearly four years. I didn't play,
having played a lot professionally in chamber music and was
really busy with the English Chamber Orchestra and various
ensembles and recitals, but it took a long time as a singer, as
you know as a singer, it does take a long time for the voice to
catch up.

So I found myself as a singer, aged 28, 29 even, where I was a
cellist, aged 15, 16. So it took a long time for the voice to
catch up and now at 32, the last couple of years I feel now
that I'm ready, I'm actually - I've gone from - I'm actually able
to be a singer in my own right and work and do operas and
recitals.

The thing is, I definitely play – now, over the last maybe two
years, the Singing Cellist thing has started to take off and it's
just amazing because the biggest thing for me was just to not
ask anyone permission 'Can I do this?', because people will
always say no. I also conduct as well and I really enjoy
conducting and I really enjoy that side of work and that side
of music-making, but then they say, 'What? You sing, you
play the cello and you conduct? It's not possible!' Well, I'm
doing it, so it must be.

We're also in this environment, and I'm sure in Australia it's
the same, it's just as hard to be a musician, and to do one
thing - I feel I've got such a variety of experiences in music
making and of people that I get to meet and work with. It's all
one of the same thing in the end.

So the singing and cello playing, now I would say I'm really
doing it and I'm discovering so many more works. Just going
on IMSLP, I don’t know if you know - you must know this website - there’s plenty of repertoire that you discover. If you just type in ‘voice, cello and piano’ you’ll find all sorts of thing. So I’ve discovered works by Donizetti, by Mercadante, Stephen Sondheim, they’re all originals and then things that I’ve arranged myself where I play cello obbligato where I lift melodies out of songs.

So I will play a line that would otherwise be played by the piano, like Strauss from the *Four Last Songs* ‘Morgen’, I do the [sings] and I sing that. So I build a whole program, a whole concert where I do that now and I intersperse it with some comedy, just very informal, but then the music itself is delivered, I hope, at the highest quality. The whole context of the performance is very human-based because it’s just me. It’s just doing what I really enjoy doing.

It is a bit of a niche at the moment. I’m sure there would be some competition, but I really enjoy doing it and I think that I sing better when I’m playing the cello.

Facilitator: Is that right?

Interviewee: Yeah, I think that there’s a sort of - you switch off the inner policeman that sometimes you have when you’re singing. You can find yourself sometimes thinking very technically. It happens sometimes that I feel more free when I’m actually - when I’m concentrating on the cello, I sing better and vice versa.

Facilitator: I remember I had a lesson with a visiting cellist a couple of years ago and he got me to talk about what I had for breakfast that morning while playing the opening phrase of my concerto or whatever I was doing and it helped so much. It just freed things up so much because as you say, there’s often this inner monologue or dialogue that’s going on about how things are going and what you’re doing and whatever. If you can somehow bypass that or turn it down or whatever, things just go much better.

Interviewee: Yeah, I think you should – you know, there’s an option to actually talk to neuro researchers for that very thing. I would be really interested to be wired up while I’m singing and playing, because people often say ‘How can you do that? How do you stay in tune?’ For me it’s - I really practise, I don’t just stand up and do it. I practise a lot and I do it -sometimes certain phrases when you have different rhythms or you’re crossing yourself, the voice and the cello, I have to really do it note by note, really, really slowly to just work it out.
Then gradually you just - you get it more and more and now, crazily, that - I mean this just happened the other day: I had a recital in Italy when I was doing the Singing Cellist and I was doing something from the *Magic Flute* and I was playing Pamina’s aria and I was doing the ‘Lá ci darem la mano’ from *Don Giovanni* where I play Zerlina and I sing Don Giovanni. It was on the day of concert, the concert was in three hours and the pianist, my fantastic colleague Edward Rushton, we were just going through and he said ‘You should do Bei Männern’ [sings], not the Beethoven one, but the duet.

So we just stood there and sight-read it there, although we weren’t going to do in the concert, and I suddenly found myself sight-reading singing and playing at the same time.

Facilitator: Wow.

Interviewee: I thought ‘Oh, I can do this’. So obviously the practise has paid off, that I can actually sight-read like you would sit at the piano and sight-read something.

Facilitator: That’s amazing.

Interviewee: It’s only as amazing as someone playing the violin. You think ‘How do you do that?’ but it’s just that they’ve practised for a long time.

Facilitator: Yeah, the brain is wired...

Interviewee: The brain can do it. You can do it. How do conductors learn scores and then be able to rehearse or go through something and then, say, after 20 minutes have remembered 12 points or something? There are all sorts of things that we’re capable of doing that we’re not - we just assume it’s not possible. I think that. I would love to run a course for string players, to give singing lessons for string players.

Facilitator: I think that would be great.

Interviewee: Do something like that. I think it would help - I know it helps me play much better: phrase better, also make a better sound I’m sure, have a much better concept of what sort of sound I want to make on the cello because I approach it as a singer and vice versa. I really am - singers are - less and less these days because competition is just so much harder, but traditionally they can’t read music, they can’t stay in time, the intonation is wrong. So the discipline of having an instrument really helps singing as well.

Facilitator: I did the [Peteris] Vasks *Das Buch* in one of my recitals.

Interviewee: Oh yeah, great.
Facilitator: So that’s the only kind of experience I’ve had doing the singing and playing, and that’s simpler in a way because you’re singing in harmony - the rhythm of what you’re singing is the same as what you’re playing.

Interviewee: What’s it called, that piece? Because you know I’ve never actually played that.

Facilitator: Oh right, it’s called - in Latvian it’s Gramata cellam and in German it’s Das Buch.

Interviewee: ‘The Book’? Great.

Facilitator: I only played the slow movement from it which is the one where you sing and play. I found it really quite hard, as you were saying, staying in tune with myself and also just coordinating everything and I guess, as you say, it comes with practice, doesn’t it? I was wondering whether in your - in developing what you’ve done, have you come across any special techniques or approaches to doing that that have helped you along the way?

Interviewee: Well, I think the main thing really is that I really, really did a lot of work and continue to do a lot of work as a singer on my singing. I think it’s working - the only reason why I can do what I do, singing and playing at the same time, is because I’ve got to a point in my singing that it works now. That was about nine years of really intense study.

I also was a bit unlucky with teachers and I had to – about a four-and-a-half year period where I was trying to be tenor, so there’s no way I could have been the Singing Cellist – well, in fact, I don’t know if you did see the video, I think I’ve taken it down of You Tube, of me doing ‘Ecco ridente’ from The Barber of Seville, did you ever see that?

Facilitator: Is that in front of an organ?

Interviewee: Yeah. It’s the Rossini and it was an encore of a concert, so everyone was laughing. I don’t - that was back in 2007 or 2008 when I was actually - I was really muddling as a tenor, I was able to fake it. As soon as I learnt how to sing, really sing on the voice, on the body, and actually have that as a sound that will carry over an orchestra, I was so unhappy as a tenor.

So it really took getting down to baritone, coming back to where I’d started and really working well with Raymond Connell and just getting to a really good technical place with the voice so I just feel completely free, I can open my mouth and I know the sound is going to come out and sometimes I shock myself that I can sing [unclear] or this kind of quite big stuff.
I’m always surprised when people say after a concert ‘Oh, you’ve got a really powerful voice’ and I say ‘What, powerful like a Ferrari or powerful like a bus?’ I could only do it if I was technically proficient as a singer in my own right. Do you know what I mean?

Facilitator: Yeah.

Interviewee: So I think that’s the thing, and as a cellist as well, you have to hold your own in both things equally and then bring them together. If I was - if this was five years ago when I just wasn’t technically where I am as a singer, I couldn’t have done it, it would have been embarrassing.

So I think that’s the main thing, is that both disciplines are separate and are approached in a very different way. Obviously singing is a completely different physical - I found a website which I was going to forward to you and I haven’t done it yet and I thought ‘There’s no point doing it anyway because it’s first thing in the morning for you’. It talks all about the singer’s formant.

Facilitator: Yeah.

Interviewee: I think it might be interesting for you to read up about and maybe even talk to someone perhaps a bit more technically qualified that me about that.

Facilitator: Sure.

Interviewee: So you can really see the physics of it, the difference between the physics of the orchestral sound and of opera singing.

Facilitator: Yeah. Just lastly on the Singing Cellist, have you actually composed any pieces yourself for you to play?

Interviewee: Well, actually what I do do sometimes is I do instant compositions, so improvisation in concert where I sing and play. I’ve done that a couple of times where I’ve started the entire concert – see, I always have a problem with the beginning of a concert because you never – basically, my idea is I want to start a concert in the same frame of mind for everybody as you would do an encore recital. You always feel like when you do your encore, you think ‘God, that was so much fun!’ Well, why can’t the very first five minutes of the concert be that same atmosphere?

I found that if I just start the concert without starting, so I’m already on stage - I’m always trying different ways to start a concert, but one is to start with an improvisation, completely free improvisation, where I sing and play at the same time, and it also - I’ve done it a couple of times and it really helps
the audience to also get used to the sound world of the evening.

So it's almost like saying 'This is what it's going to sound like. Here are the noises that I'm going to make' and it can set up an atmosphere. Otherwise, except for the improvisation, my own compositions, I've written a couple of things, but more in terms of my more musical comedy style thing like that Inner Voice of the Opera Singer, I don't know if you saw that.

Facilitator: Is that on your website?

Interviewee: Yeah, it is, but I'm not playing, it's just for a singer. The other thing is - or the only other thing I do is I transcribe and arrange things. So there's, for instance - an obvious example would be the Pearl Fisher duet where I would play the tenor line and sing the baritone line, or as I said the 'Bei Männern' duet where I would play Pamina and sing Papageno, those sort of things. That's really nice - I find that's useful because then you can program quite nicely around that.

So the entire concert doesn't have to be Singing Cellist, rather I can make a Mozart group and I can do a couple of Mozart things and then also sing an aria and play an aria or that kind of thing.

Facilitator: Yeah, mix it up, okay. I want to pick on something you said just before in that the - you were saying that singing and playing are quite different physical activities. I was wondering whether you thought - well I was wondering whether you had any ideas of how they might be similar and do you approach them at all in a similar way physically?

Interviewee: Well, it's difficult. To answer that - obviously it's not the same.

Facilitator: No.

Interviewee: I do approach it the same way musically and intentionally and artistically, but how that translates to the nuts and bolts of what you're doing, I think that it maybe goes slightly back to the idea of being - of really having to be technically completely on top of both things individually. Then having the freedom to do what you want with them both together.

It feels like I'm not focussing on either one or the other, or rather depending on the moment in the music - obviously there are moments where - you know, I do cheat a lot. I might slightly alter a rhythm that - if there's an awkward shift, for instance, I might perhaps not - that I need to concentrate on, I make sure I get the shift, find the note and
then put the voice in, even if in the piece they're supposed to happen at the same time. I've done that before.

Or I've even - you have to - you've got to fake it a bit, but I think that's reasonable because no one wants to watch you - no one wants to pay money and sit and watch you struggle your way through something. My excuse is it's hard enough already, so give me a break.

Facilitator: Yeah, indeed.

Interviewee: So the basic concept - they feed into each other so well because the concept of it is the same. You're finding that point, if you're balancing plates on a - you know, spinning plates on a stick, you're not actually - you've just found that middle point where you have to do the minimum, the absolute bare minimum, but you're keeping the plates spinning.

That is the case for playing the cello. That's the case for singing. That's the case for driving a car. You don't drive and - you don't have the clutch half way down, the accelerator all the way down, with your shoulders tense. Once you're on the motorway you just touch the accelerator ever so slightly. You don't have to do anything. The car is driving itself.

I think that's the same when you're singing. You set it all up and the voice just does it and you follow the voice. It's the same for the cello as well, but you can't just get up and do it. That comes with practice. It's the same for dancing. It's just I think that whole - there must be a name for it, that relaxed tension that's in sport, in dance, in music, in playing, everything.

Facilitator: That idea, yeah.

Interviewee: In kissing [laughs].

Facilitator: Mm. I'm interested in your work as a teacher. You have a private studio there for teaching singing?

Interviewee: Yeah, I've got - that sounds very sophisticated. I mean, I have maybe three or four students a week who I teach privately at home, yeah.

Facilitator: You also tutor and give master classes and things, is that right?

Interviewee: Yeah. So I have a cello student who I teach and a couple of singing students. I also teach a - I also conduct a choir in a university called Morley College in London which is an evening place for adults who want to go and do further study.
And the master class I’m doing this weekend, it's going to be singing. I do singing workshops - I do it, but I try not to do it too much if you know what I mean.

Facilitator: Sure.

Interviewee: I let things just come - they come because I really - I don’t want to pin myself down too much because my main thing is really performing and developing that.

Facilitator: Absolutely.

Interviewee: One thing I really enjoy is working with - I’ve done quite a few courses now with Aldeburgh Young Musicians who are a very highly selected group of young kids, 12 to 18 year olds, and they come and they do these courses. I’ve run a couple of courses with them and that’s been really rewarding because they’re very open minded, completely unjaded and very talented musicians.

There is one kid, he is 15 years old, an amazing pianist, just phenomenal. Then he picked up the violin and played incredibly well and then it turns out he is doing a physics degree on the side as well. He’s 15. So you've got these little geniuses who are there and we're working and it was so exciting with him, for instance, because I said 'Have you heard of --'. We were talking about music and understanding pieces. I just mentioned to him, now I can’t remember the name, you know where you dissect a piece, so an entire Beethoven symphony is diluted down to two chords, what’s the name of that...

Facilitator: Oh, Schenkerian analysis?

Interviewee: Schenker, yeah, and I said ‘Look, I’m not saying that this is what you should do or anything like that’, so I just told him about Schenker and he didn’t know anything about it. So immediately - the next thing I knew, the next day he had read - he had showed me all these websites he had looked at and everything. So then suddenly he knew more than I did. It had just come into my mind to mention him.

So I do that and I find that very rewarding. I find with the 70-year old amateurs who come on a Wednesday evening slightly less rewarding. It feels a little bit like social services, but at the same time I do bring in all of these concepts like I was just saying about the spinning plates or anything, and I find that these guys, they’re not going to be great singers, or they’re not even going to be singers, but even some of these concepts about just what it is to sing or to play an instrument
Facilitator: As you were saying, it resonates with other parts of life too.

Interviewee: Absolutely. It sounds really cheesy, but I think that there's so many parallels. Music and making music is really life. That is life, that's what it is. I can't think of anything else that we do that doesn't relate to that somehow. Anyway, I could go on forever about that.

Facilitator: I saw just the beginning of a video that you've got on your website of the Aldeburgh Young Artists or whatever it is.

Interviewee: That's what I was talking about.

Facilitator: Yeah, you were doing a couple of choral pieces in the foyer and then I didn't watch too much into the string part, but were the all the same - were they instrumentalists in the choir as well?

Interviewee: Exactly, so those kids were - that concert, if you've got the patience - don't listen to the - if you go to the last 15 minutes of that video you will see - the bit in between is sort of student compositions and it's a little bit - slightly school concert-y sort of thing.

What you will see - and that was exactly something I wanted to do with them, they're all instrumentalists really, fundamentally, none of them are singers, but I wanted them - we made a choir out of them. We only worked together for four-and-a-half days and within that time they had learnt these two chorales that you heard at the beginning in Hebrew. Then they sang later on from memory something in Czech and at the very end they sang something in German from memory.

All the repertoire was based on music that was written in Theresienstadt in the ghetto, concentration camp, during World War II where all Czech and some other Eastern European Jewish people were sent as a holding camp before they were deported further on to Auschwitz and other extermination camps. One thing that was happening there was they were actually allowed to make music and theatre and concerts and things like that.

At the time in the '20s and '30s the real cultural elite, the intelligentsia were mostly Jewish and so in Prague - so suddenly all these massive stars of music and opera and theatre suddenly found themselves in this awful ghetto.
So we spent a week just exploring that with the kids and my grandmother who is a holocaust survivor came and gave talks to them, and then we explored the music. In terms of singing and playing, we got them to play some Ullmann. This was a transcription of a piano sonata that he wrote in the camp that a composer, Edward Rushton, arranged for this ensemble and then as soon as they finished playing they just stood up and then sang the finale from *Der Kaiser von Atlantis* which Ullmann wrote in Theresienstadt, but was never performed.

So I think it was - and also for me that was a very personal project, but it was also really fun to work with these musicians, simply as musicians. I think - I never really quite moved on from when I was that age in my mind. Music making is simply music making, it doesn't matter how you're doing it. It's only when you go to Music College and people say 'Oh no, you've got to concentrate on one thing'. Then not only that you've got to only be a Baroque violinist, or you can be this or you can only play that sort of repertoire. I don't know where we started...

**Facilitator:** It's a bit of a ridiculous, isn't it?

**Interviewee:** Well, it is. What do you expect? We should really be all-rounders. Not only professionally, but just for your own kind of psychological well-being.

**Facilitator:** Sanity, yeah.

**Interviewee:** You've got to - we have this great wealth now of knowledge and time and we've got a huge amount, nearly 1000 years to look back on. Why shouldn't we learn how to - why shouldn't we be able to perform all of that stuff?

**Facilitator:** Exactly. I guess there's been an increasing - well, over the twentieth century maybe there's been an increasing emphasis on extreme kind of accuracy and - I don't know quite what the word for it is, but anyway that kind of specialisation.

**Interviewee:** Specialisation, yeah.

**Facilitator:** Yeah, and I think maybe there is a movement nowadays against that, or not against that, but as you say, broadening it out into a general music-making thing where you do more than just sit at a piano for 17 hours a day or whatever.

**Interviewee:** Yeah. I think that we need to have a high technical expertise, but I don't think that it's - we were - it wasn't that long ago that if you were a cellist you would be expected to be composing music for cello as well. Some of the best
composers play their own instrument and Mozart played several instruments, and they were expected to improvise, sit down and improvise.

So there's a lot that's been lost and I think that musicology has also slightly missed the point. Anyway, it's very difficult to generalise actually, because on one hand people are being taught to really interpret and be individual and find their own way and then they come out and find they have to sit in a symphony orchestra and do as they're told and no one has been taught to do as they're told. So it can be very difficult.

Facilitator: That's right. Just getting back to your teaching, in your studio work I was wondering whether there were any cross influences? So in your singing teaching, whether you ever use any of your instrumental experience in that and vice versa?

Interviewee: Always.

Facilitator: Anything specifically?

Interviewee: Specifically I suppose, let me think. The most interesting students that I have - there's one guy who has got an amazing voice, but he's also a trombone player. So I get him - I had him play his trombone, take it out in the lesson and we work on phrases sometimes like that.

I think that - and I've always done it with teaching cellists. It's easier in a way just to get the student to sing the phrase. It sounds so simple, but it can be really hard and scary, especially depending on the age and the slightly adolescent embarrassment level. Sometimes it doesn't help because if they're just going [squeaks], they'll squeak the melody out and you think 'Okay, well let's just leave that for now'.

So I think in an elementary way that's something that I would do, but I really like to, when I'm teaching - it just depends on who it is and what they need, really. I don't have any set way of doing - not at this point. I don't really have enough students and I'm not interested enough to be doing that full time to have one particular way I do it.

I really – teaching I really enjoy because I learn so much when I'm doing it. You very rarely sit down and work it out for yourself, unless you're trying to understand it in somebody else and explain it and think 'How is it that I actually do that?' It's very self-reflecting and then they give you a cheque at the end of it which is great.

Facilitator: That's right.
Interviewee: Well, you must find that too when you're teaching.

Facilitator: A bonus. Yeah, sometimes, more than others, I guess. I'm teaching more littlies at the moment, so sometimes it's a bit of a hard slog, but there are certainly rewarding moments and moments where you come to a realisation about what you've been doing, or playing generally. It can be really rewarding in that way, that's true.

Interviewee: Do you have any students, or even maybe one, that is just a little musical angel that you really feel or think 'This is just a gift'?

Facilitator: Well...

Interviewee: Or does it sometimes feel like you're babysitting for half an hour?

Facilitator: Sometimes it feels a bit like that, especially with students who don't work so hard out of their lessons. That can be quite frustrating, but I've got one cello student at the moment who has only just picked it up and she's doing incredibly well, but she works really hard and obviously has quite a good ear and also listens and puts into practice what I say. So that's quite rewarding. I don't know whether she will go on and do it as a thing or not.

Okay, so I'm almost done with my questions. I was wondering when you were working as a cellist in an orchestral setting or in a chamber music setting, what was your experience of working with vocalists in that setting? Do you think that your experience as a singer helped you in that setting when you were working with vocalists in a group?

Interviewee: Let me think. I think I can turn it around the other way. In many ways I enjoy more singing oratorio. If I'm with an orchestra and I'm singing an oratorio solo, or something with orchestra, I enjoy that more sometimes than singing an opera with an orchestra because I feel like I've got that really fun musical connection with the conductor and with the instrumentalists. It's fun in rehearsals to look around the orchestra as you're singing, picking out certain things musically that are happening with you.

I feel an affinity because, as a cellist and knowing exactly what that's like to sit in the orchestra, I feel very collegial and very cosy there and I feel really at home in that setting.

When I'm playing, I like - this time last year, a bit more than a year ago, I accepted for the first time actually a patch of work with English Chamber Orchestra and they were playing for an
opera. They were doing *I Puritani* and to sit in the pit, because I had never sat in a pit before.

It wasn’t really very good money and I also felt slightly awkward about doing it because I also didn’t really want to confuse anyone I might meet. There is a certain - I was trying to be careful about not - people might not take me seriously. I might actually suffer in my work as a singer if people think ‘Well, what’s he doing there playing the cello?’

So there was that, but I also just wanted to see what it was like. Well, now I know what it’s like to play in a cellar, bored out of your mind for three hours, and I don’t need to do that again.

It’s also because the piece itself, *I Puritani*, for the orchestra - unless you’re playing in the first violins or maybe in the wind section with some great tunes, for the cello, the book is about three centimetres, four centimetres thick and there is a half-page of cello tune on a page-turn. So you only end up playing half of it anyway and that was my experience.

Also then socially it was weird because I knew a couple of the singers and actually someone I studied with was singing the title role and I didn’t know that until I got there. There was just this certain - it was fun and it was weird and I didn’t really want to do it again.

Facilitator: Yeah, sure. Did you ever work as a chamber musician with vocalists?

Interviewee: Oh yeah, well, playing continuo now for St John Passion, I did - I can’t remember, it was quite a few years back and it was before I really was singing professionally, but I remember I played continuo and I just loved it and I thought “This is what I want to do. I want to be the continuo player for all of this kind of stuff” and I did continuo for *Poppea* and that was the best thing ever because you were just giving everything.

You were giving the character, you’re giving - I really ate that up because you’ve got the words there and you can give all of the mood, you can lead the harmonies, you can insist on stuff as a continuo player. You can force the soloist to sing it in a certain way just as a lead pianist can really lead the singer, actually. Depending on the singer and the pianist it’s less of an accompaniment and more of leading, actually.

So I love played continuo. I still love that when I get the chance, but I think for me anyway, generally, I find sitting in the orchestra really hard. I’m more nervous doing that than I am doing anything solo. It’s not meant in an arrogant way, I
just think that I’m so scared that I’m going to make a mistake and stick out like a sore thumb. Whereas if you’re playing solo it doesn’t matter if you make a mistake because you’re on your own and you can - so there’s that - I feel more free doing that.

So I don’t do any orchestral stuff now. I haven’t been asked for a while. I think that I made it clear in my last couple of gigs. Because I can’t be bothered to - so it’s written mezzo forte, I’m going to play mezzo forte. Then I was always booked for...

Facilitator: For playing too loud.

Interviewee: Yeah, in the last - I would play number six cello if they needed six cellos. This is ECO I’m talking about, English Chamber Orchestra. I don’t know how your paper, how much that’s going to be public or anything, but it’s okay to say that I played with them, but just be careful, I was never a member of the orchestra. I was also only ever a freelance extra.

Anyway, so I just thought ‘Well, I’m at the back of the section. I’m going to play out. I’m going to give the rest of the section a sound to play into’. Then I found myself - the guy in front of me, I said ‘I think we should do up bow here. It’s much better’. He said ‘Well, we’re doing down bow’. And I was like ‘Well, I’m going to do an up bow’. I thought ‘Simon, what on earth? You can’t say that’. And I thought ‘This isn’t for me. I can’t deal with this hierarchy. Why are they doing it down bow? It’s not natural’. Then that was that. So I do my own thing and it’s much more fun.

Facilitator: I reckon the majority of musicians would probably agree with you I reckon, but there are reasons why you do it, aren’t there? Okay, so just to finish up, are there any other comments or ideas that you have that you would like to share?

Interviewee: Probably a lot. What we could is we could leave it for now and just feel free, if you want to write to me again once you’ve gone over everything you might have some more questions and I would be really happy to help you out.

End transcript