Karnatic Violin Techniques in Collaborative Practice:

A Violinist's Perspective

Alice Barron

Thesis submitted for the degree of Doctor of Philosophy in Music

Somerville College, University of Oxford

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Abstract

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This thesis examines the study and incorporation of Karnatic (South Indian) violin techniques in contemporary music projects in London. The violin provides a lens for viewing the social and psychological interactions between musicians, instruments and cultures in practice. A series of six case studies document my experiences as a violinist ranging from lessons with Karnatic violinists through to creative projects where the influence of these lessons is present by virtue of incorporating Karnatic violin techniques as part of a toolbox of extended technique. I consider questions surrounding the ways in which knowledge is disseminated from teacher to student and then mediated between musicians, led by my own experiences working with Karnatic violin teachers, including the Mysore Brothers, as well as composers and performers in London. In this way, my research opens up broader questions about the creative potential and complexities surrounding cultural exchange in twenty-first century London. I examine the close relationship between culture and knowledge and the ways

that the use of Karnatic violin techniques in collaborative practice can shift the creative emphasis of working relationships between musicians.

Following the trend over the last decade to move away from a disembodied approach to music (Clarke and Davidson 1998: 74), this research aims to draw out the embodied experiences of incorporating Karnatic violin techniques in collaborative practice. An autoethnographic methodology is employed to investigate a mode of collaborative and professional practice in contemporary music, questioning:

(1) How is the knowledge of the violin and Karnatic violin playing disseminated and mediated between musicians?

(2) What can the use of Karnatic violin techniques with musicians in London reveal about the processes of creative collaboration and cultural exchange?

On a practical level, extending the physical and cognitive means of the musical body can bring about new possibilities for contemporary violinists incorporating body and mind within cultural, social and psychological interactions. I will highlight the fact that while creative collaboration has become a prominent topic in recent research, collaborations involving cultural exchange are still relatively unexplored.

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Glossary[1]

ālap / ālapana (Sanskrit)	an improvised and rhythmically free section that opens and introduces a composition.
bānī (Tamil)	a musical style or mode; usually a family tradition.
gamaka (Sanskrit)	ornamentation, embellishment, decoration; the shape of a *svara.*
gharānā (Hindi)	musical lineage (North India).
guru (Sanskrit)	teacher, spiritual guide.
gurukula / gurukulam (Sanskrit)	the conventional method of teaching in India whereby the student becomes part of the teacher's household.
guru-*shishya paramparā* (Sanskrit)	master-disciple tradition.
Hindustani music	classical music from North India.
Karnatic music	classical music from South India (Tamil Nadu, Karnataka, Kerala, Andhra Pradesh and Telangana).

[1] See Pesch (2009: 387-517) for further definitions.

rāga (Sanskrit)	the basic meaning of the Sanskrit word *rāga* is colour, passion or feeling. *Rāga* is a set of pitches (*svaras*), intervals, *gamakas,* characteristics and phrases that can have different ascending and descending formats. *Rāga* is recognised by the melody and shape in addition to the group of pitches.
sargam (Sanskrit)	the collective term for a group of *swaras* in both Hindustani and Karnatic music. The word is an acronym for the first degrees of the first four *swaras* (*Sa, Ri, Ga* and *Ma*). Sargam notation is similar to *solfège* and uses the *svara* names.
shishya (Sanskrit)	disciple, student.
svara (Sanskrit)	pitches or syllables.
tāla (Sanskrit)	pulse, metre.
tānpurā (Sanskrit)	a long necked, plucked string instrument that traditionally provides the background drone accompaniment for all performances in Hindustani and Karnatic classical music.
varṇam (Sanskrit)	a musical piece or composition.

Note on transliteration and spelling

Given the multitude of different regional languages in South India (the state of Karnataka has over 70 languages), there are often several different spellings of English translations. For purposes of consistency, I have adopted spellings that match the original source in question. See Reck for an explanation on the multiple spellings for the instruments in South India in relation to different southern Dravidian languages (2000: 350).

Name changes to cities in India

Following independence from British rule in 1947, the names of many of the states, cities, towns and major roads in India changed, gradually replacing British names in a move to shed the links with the colonial past. For example, Madras became Chennai in 1996 and Calcutta returned to the Bengali name Kolkata in 2001. While many name changes have become widely used (with the exception of some of the older generations), the return to pre-colonial city names in the state of Karnataka in 2014 is currently only used for official purposes (such as at train stations): for example, Mysore is officially now called Mysuru. It is worth noting that the move away from British words in India has been an ongoing transition since 1947. It is a particularly slow and often complex process in areas where multiple languages are spoken. For the purpose of this research, I adopt the names that are in current use with the people of the cities in question: namely Chennai (with the exception of the Madras Music Academy that retains its colonial name) and Mysore (where the name Mysuru is not yet being used by residents in 2018).

Introduction

How do musicians work together in creative collaboration and cultural exchange? And how can the incorporation of violin techniques from India shape the collaborative process for musicians in London? This thesis examines the study and use of Karnatic[2] (South Indian) violin techniques in contemporary music projects in London where the violin provides a lens for viewing the social and psychological interactions between musicians, instruments and cultures in practice. A series of six case studies document my experiences ranging from lessons with Karnatic violin teachers through to creative projects where the influence of these lessons is present by virtue of incorporating Karnatic violin techniques as part of a toolbox of extended technique. I will consider questions surrounding the ways in which knowledge is disseminated from teacher to student and then mediated between musicians, led by my own experiences working with Karnatic violin teachers as well as composers and performers in London. In this way, my research opens up broader questions about the creative potential and complexities surrounding cultural exchange in twenty-first century London. I will examine the close relationship between culture and knowledge and the ways that the use of Karnatic violin techniques in collaborative practice can shift the creative emphasis of working relationships between musicians. Focusing on my own practice involving Karnatic violin techniques alongside my training and work as a Western classical violinist, I present an autoethnographic perspective on Karnatic violin techniques in collaborative practice. This chapter outlines my aims and objectives, theoretical frameworks and an overview of the

[2] Karnatic music is the system of classical music that originates from South India. There are multiple English spellings of the word Karnatic: including Carnatic, Karnatik and Karnatak. For the purpose of this work, I will adopt the spelling widely used by musicians and musicologists in India – Karnatic – with the exception of quotes that use alternative spellings.

thesis; but first, let me take you back to a specific event that initiated my curiosity for the violin in India ten years ago.

Whilst in Kolkata[3] (West Bengal) in 2008, I experienced for the first time the violin being played in an Indian classical concert. Sitting on the floor at *Kalighat Kali* Temple, my awareness was drawn to many significant factors at play throughout the performance: a highly developed technical craft of the instrument, the use of the body in relation to the violin, the collaborative and social principles of performance and a strongly embedded sense of cultural tradition. I did not anticipate that this concert would be such a pivotal point for my violin playing, and consequently my research. The Indian violin was not well known in the UK at the time and although this is gradually changing, it is still not common knowledge amongst musicians in London that the violin is a prominent instrument in India. I was immediately struck by the remarkable left hand dexterity that is partly facilitated by the cross-legged playing position when the scroll of the violin rests on the right foot. The violinist's instrumental craft displayed an intriguing synthesis of highly virtuosic fast passages coupled with immense fluidity and subtle embellishments that are the rubric of the Karnatic music system. Listening to and observing an unfamiliar craft of an instrument that I have played and experienced for many years instantly piqued my curiosity and reconfigured my sense of the creative capacity of the instrument. The early stages of my ethnography are framed by questions that arose in this concert surrounding the violin. How has this style of playing developed and what is its

[3] Formerly known as Calcutta; see the note on Indian names and terminologies prior to this chapter for further detail.

relationship to its ancestor, the European violin? What are the teaching methods and strategies for learning Indian violin techniques? How does the craft of the instrument relate to the social and cultural environment in which it is situated? How can the fluid approach to the left hand, that immediately caught my attention, inform my own playing? Of particular interest was the precision of the *glissandi*, which are a vital element in capturing the sound quality and character of each *rāga*.

It is worth noting that Hindustani is the classical music from Northern India, which became distinct from the Southern, Karnatic, musical system around the thirteenth century (Ruckert 2004: 6). Despite the segregation of styles, 'much overlapping and exchange of musical materials has taken place' (Ruckert 2004: 6). The violin is used in Hindustani music, but does not have a dominant role as it does in the South. Hindustani music comprises both instrumental and vocal music, with the violin used as a solo instrument and in ensembles. On this occasion, 20 February 2008, the performers were Hindustani (North Indian) classical musicians, comprising: violinist Biswajit Roy Chowdhury (known as Munti), with whom I studied following this concert; *bansuri* player Buddhadev Chatterjee; and *tabla* player Subhen Chatterjee.[4] The animated exchanges in both music and gesture made for a thoroughly engaging and impressive performance, seemingly drawing the audience right inside the creative process. As illustrated in **Video example 1.1**[5], Buddhadev's hand signals (0:07) are accompanied by an exchange of smiles (at various points including 0:09 and

[4] The drone is being played on a *tanpura* by Buddhadev's wife (whose name was not given).
[5] Note that this video was made on a hand held digital camera and is of relatively low quality with a significant degree of background noise from the surrounding temple activities.

1:02), coupled with introspective looks of concentration (0:24) and head movements from Munti (0:38) to lead the accompanying tabla player who is watching intently during the violin solo: this was collaboration happening in-the-moment, on stage in real life. The ways of working together that are visible from an audience's perspective prompted many questions relating to the seamless transitions between composed and improvised musics.

Although the craft of the violin and musicians' interactions gripped my attention, the context of *Kalighat Kali* Temple brought further insight into an everyday experience reaching beyond the music. The immediacy of the performance and the immaculately dressed musicians stood in stark contrast to the ongoing temple life: Hindu temple rituals, bells being struck, mobile phones ringing, car horns beeping outside, children playing, dogs searching for food and the strong scent of incense. In many ways this was a collision of ancient and modern India, a real juxtaposition of people from all walks of life where music had a social and cultural context as well as a deeply ancient significance.

The concert at *Kalighat Kali* Temple was the beginning of my journey exploring three paths that are intrinsically linked: i) studying with violinists in India; ii) integrating Indian violin techniques in collaborative music projects in London, partly prompted by the creative approach to collaboration that I observed in performances in India; iii) the significance of the social and cultural context as a way of understanding my new experiences with the violin. Following this trip to Kolkata, I studied in South India where the violin has become one of the most widespread instruments in the Karnatic classical tradition. The left hand

movements of Karnatic violinists draw parallels with the ways in which the craft of the instrument is being extended in contemporary Western classical music in London, described by the term 'extended technique'. I have studied with eminent Karnatic violinists Dr Mysore Manjunath and Mysore Nagaraj (known collectively as the Mysore Brothers[6]), Embar S. Kannan and Dr Jyotsna Srikanth; these experiences provide an insider's perspective on learning a new craft of the violin that I investigate through its dissemination to musicians in London.

The London environment within which my work is situated is significant for shaping the creative process and context for musicians working in cultural exchange.[7] London stands as a large-scale metropolitan centre that is distinctive in the UK as a multicultural hub with a high density of cultural activities. From a historical perspective, it is important to recognise the British colonial legacy. In the case of India, a lengthy and complicated relationship under British colonial rule, followed by decolonialisation and the Commonwealth, has led to an Indian diaspora[8] that make up around 1.4 million of the UK population today, of which 38.4% live in Greater London (UK Government 2018a).[9]

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[6] The Mysore Brothers are Mysore Manjunath and Mysore Nagaraj, referred to hereafter as Manjunath and Nagaraj. These violin lessons took place in Mysore on two visits to India: from 11 December 2015 to 17 January 2016, funded by the Bentivoglio Fund from Somerville College, Oxford; and from 14 December 2016 to 26 January 2017, funded by the Gerry Farrell Travelling Scholarship, SEMPRE.

[7] Note that although the workshops and rehearsals for these case studies took place in London, there have been several performances in different UK cities. For the purpose of this research, I am concerned with the London-centred creative processes.

[8] Oonk questions whether the term 'diaspora' is appropriate and representative of all international migrant groups and that instead the concept of diaspora is ever changing and evolving (2007: 14). In the case of London today, second, third and fourth generation citizens of Indian heritage, as well as those who are mixed race, provide a multitude of contemporary perspectives on the meaning and validity of the 'diaspora concept' (see Oonk 2007).

[9] During the British rule of India, many people travelled, worked and lived between the UK and India. This movement of people further increased following World War II, the Partition of India (1947) and the British Nationality Act (1948) that provided a new status for citizens born in the

The fact that London represents the extremes of wealth and political perspectives in the UK lies beyond the scope of these discussions, but a generalised view adds further insight to the particular context within which my work is placed. The comparatively high support in London for remaining in the European Union for the 2016 referendum is a timely case illustrating how London is often an exception to views, behaviour and life style in comparison to the rest of the UK. While there are many factors that influenced this result among London voters, the multicultural makeup of the city arguably played a part. Summarising the figures on the UK population and ethnicity, the UK government states that:

> as at the 2011 Census, the most ethnically diverse region [of the UK] was London, where 40.2% of residents identified as belonging to either the Asian, Black, Mixed or Other ethnic group. (UK Government 2018b)

While this statement only serves as an overview, it highlights the disparity between London and the rest of the country in terms of ethnic diversity.

Along with ethnic diversity, the intensity of music and cultural events in London contributes to a rich and varied creative working environment. In an ethnographic study of musicians working in London, Stephen Cottrell explains how

> London is, unquestionably, one of the busiest musical centres in the world; indeed it is often thought of by those musicians who work in it to be the musical capital of the world. There are, I suspect a greater number

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UK or the ex-colonies up until 1971 when immigration laws in the UK began to tighten (see Ansari 2013).

> of musicians in the city than anywhere else, who feed into a plethora of different types of musical performance events. (2004: 8)

Although Cottrell's study focuses predominantly on Western classical musicians, my own experiences reveal the breadth of musical and cultural traditions that can be found in London: these include projects with musicians from Bangladesh, Brazil, Ghana, Iran, Java (Indonesia), Norway, Palestine and Syria. London can also be seen to be representative of several urban centres in the world (often capital cities) that have similar and distinct approaches to multiculturalism, particularly within the arts (for example, Berlin and Amsterdam).

0.1. Aims and objectives

This thesis is primarily concerned with the ways in which knowledge and experiences of Karnatic violin playing are transmitted from teacher to student, and then mediated between musicians working in collaborative projects. I examine the process of integrating Karnatic with contemporary Western classical violin techniques in collaborative practice in London. There are many overlapping and interrelated themes, which I address in connection to the ways in which knowledge is accessed and shared in different working relationships: these include cultural exchange, improvisation, methods for learning and the relationships between collaborating musicians. The violin, and specifically the Karnatic violin, acts as a lens for viewing these broader topics that all centre on social and psychological relations in music making. Following the trend over the last decade to move away from a disembodied approach to music (Clarke and Davidson 1998: 74), my research engages with the ways in which Karnatic violin

techniques introduce a new technology of the musical body and consequently afford new ways of approaching the instrument, both physically and mentally.

Using the violin as a platform for research, I place the technical craft of playing an instrument within a broader view of the sociological and psychological interactions between musicians. My research aims to draw out the embodied experiences of incorporating Karnatic violin techniques in collaborative practice and asks:

(1) How is the knowledge of the violin and Karnatic violin playing disseminated and mediated between musicians?

(2) What can the use of Karnatic violin techniques with musicians in London reveal about the processes of creative collaboration and cultural exchange?

My thesis investigates a mode of collaborative and professional practice in contemporary music from a performer's perspective within a theoretical social-psychological framework. For violinists engaging with non-European musics, my research will draw attention to the ways in which a minority of violinists are turning their instrumental craft towards a more global set of skills, as a means of developing a new 'box of tricks' for creative collaboration. On a practical level, extending the physical and cognitive means of the musical body can bring about new possibilities for contemporary violinists incorporating body and mind within cultural, social and psychological interactions.

Before setting out my framework for the thesis, I will summarise a definition of a key term that has many problematic connotations: collaborative cultural

exchange. Musics that emerge from cultural exchange are described by any of the following terms: cross-cultural, crossover, intercultural, transcultural, trans-traditional,[10] post-genre, hybrid and fusion. They are often genre-defying and labelled by the music industry under the broad category of 'World Music', a blanket term that was introduced in 1987 to refer to non-Western popular musics (Farrell 1997: 201).[11] In light of this flexibility, as well as the technological possibilities and accessibility of travel in the twenty-first century, I present my work under the umbrella term of 'cultural exchange', which negotiates a combination of face-to-face interactions, cultural influences, personal correspondences and technological communications, such as instant video applications, and which will be discussed in further detail in Chapter 2. In the case of Karnatic violin techniques in collaborative practice, the concept of cultural exchange occurs on a number of planes: through the instrument itself, which has travelled (along with musicians and music) across Europe and Asia; and between musicians, to varying degrees, in my London-based case studies. The fact that cultural exchange is rarely an equal two-directional interaction arguably cannot resolve the concerns surrounding the process, but, by using this term in preference to other contested terms, I hope to draw a notion of change and social interaction into the core of the creative process that can itself be a focus for interrogation.

[10] See Bhagwati (2018).

[11] In this sense of the term World Music 'as it has developed [in the 1980s] is primarily about popular music that functions as a backdrop to Western exotic consumerism' (Farrell 1997: 201). See Farrell (1997: 201-18) for further details about the relationship between World and South Asian musics.

The concept of collaboration has become popularised over the last twenty years, employed by performers and composers across multiple musical genres and at the same time becoming a fruitful, but often disputed, topic for artistic research. In a recent book examining the distribution of creativity across multiple collaborative models, Clarke and Doffman propose the following definition:

> The word 'collaborate' (from the Latin 'col' together, and 'laborare' to work) denotes that combined labour in which the work of one person combines with, changes, complements or otherwise influences the work of another (or others), *and is in turn influenced by it.* (2017: 3; original emphasis)

On the one hand, the term collaboration is overly broad for representing what is a myriad of formats when musicians work together; but on the other hand the concept challenges the single authored, often composer-led, understanding of creativity that has dominated the practice and scholarship of creative arts up until the 1990s, where 'the composer-hero stands over the interpreter' (Born 2005: 26). As I return to and refine my understandings for both creative collaboration and cultural exchange throughout the course of the thesis, I place my discussions within understandings of the sociological and psychological interactions between musicians to frame the otherwise broad and expanding topics surrounding collaborative cultural exchange.

0.2. Overview of the thesis

The trajectory of the thesis follows an increasing degree of mediation from my lessons with Karnatic violinists towards a point in the final chapter where the case studies integrate Karnatic violin techniques into contemporary group projects in London and invite broader questions relating to cultural exchange.

Figure 0.1 provides a timeline of the main lessons and collaborative events that have played a key role in the thesis:

2008

>Hindustani violin lessons with Biswajit Roy Chowdhury: Kolkata, India



2010

>Collaborative workshops with Robert Szymanek, *the bond between 1 (tbb1):* London



2011

>Western classical violin lessons at the Royal Academy of Music with Richard Deakin and Jim Sleigh *(tbb1)*: London



2011

>*tbb1,* performance and recording: London



2011 - 2012

>Karnatic violin lessons with Embar Kannan, *the bond between 2 (tbb2):* Chennai, India

>Gamaka Box session with Ramesh Vinayakam: Chennai



2012

>*tbb2,* recording: London

>Karnatic violin lessons with Jyotsna Srikanth: London



2013

>*the bond between 3 (tbb3),* arrangement, performance and live recording: London

>Concert including *tbb1 and tbb3:* London



2015

>Collaborative workshops with Jasmin Kent Rodgman, *Recitations:* London





2015 - 2016

>Karnatic violin lessons with Embar Kannan: Chennai

>Karnatic violin lessons with the Mysore Brothers: Mysore, India



2016

>*Recitations,* workshops: London



2016 - 2017

>Karnatic violin lessons with the Mysore Brothers: Mysore



2017

>*Recitations,* performance: York

>Karnatic violin lessons and collaborative sessions with Jyostna Srikanth, *Rāga Abhogi*: London

>iyatraQuartet, workshops and performance, *Bhairav:* London



2018

>*Bhairav,* recording*:* London

>Dr K Sextet collaboration with Jeremy Thurlow, Moumita Mitra and Sayak Barua, workshops, *Elephant of the Clouds (EOTC)*: London

>*EOTC* performance and live recording: Oxford

Figure 0.1. Timeline: summary of main events, 2008 – 2018.[12]

Beginning with my experiences in Kolkata (2008), the timeline above shows how my subsequent studies in Chennai and Mysore have taken place simultaneously to some of the projects that make up the case studies for this thesis. Prior to studying in India, my training as a Western classical violinist included a degree in Music at the University of Nottingham, followed by a Masters in Western classical violin at the Royal Academy of Music, London (2009 – 2011). From 2011, I have built up a freelance career as a violinist in London, specialising in contemporary musics with a particular interest in projects involving elements from Karnatic violin playing – the case studies included here are an example of this collaborative work from 2010 to 2018. These projects form part of my journey studying with Karnatic violinists, incorporating Karnatic violin techniques into a wider notion of contemporary violin playing.

Chapters 1 and 2 outline the theoretical framework, methodologies and a review of the literature within a social-psychological framework for the otherwise broad and expanding topics of creative collaboration and cultural exchange. Focusing on the human body and the technology of violin playing I engage with the literature on embodied cognition and ways of knowing in three interconnected domains:

(1) Negotiating different ways of knowing when learning with Karnatic violinists;

[12] Note that this timeline includes the key events for each collaboration, such as the beginning of the workshops and first performance. Further details are included later on in the thesis when the collaborations are discussed in depth.

(2) The violin as an extension of the self in Karnatic and Western classical musics;

(3) Taking the embodied experiences of Karnatic violin playing into collaborative practice.

Chapter 2 concludes with suggestions for a social-psychological approach to examining Karnatic violin techniques in collaborative practice.

Chapter 3 is concerned with how the violin that is used in South India today came from Europe in the eighteenth century and has undergone many physical and technical transformations to fit Karnatic classical music. Given the limited sources documenting both the historical and practical use of the violin in India, this chapter provides a brief context, followed by an overview of some Karnatic violin techniques accompanied by video examples. This section acts as a practical manual for violin playing that is integral to my discussions of the following case studies. Drawing closely on my experiences studying Karnatic violin in India, Chapter 4 engages with the way in which Karnatic violin techniques introduce new ways of using the musical body and consequently afford new ways of approaching the instrument, both physically and mentally. Focusing on the role of the violinists' left hand provides a platform for drawing out the embodied experiences of Karnatic violin techniques from a performer's perspective. I reveal how a cultural construction of the hand in everyday living in South India can act as a way of accessing some of the movements and gestures of Karnatic violin playing.

Beginning with an outline of the *guru-shishya* (teacher-disciple) relationship, Chapter 5 draws on theories of knowledge as a way of understanding the experience of imitative learning in Karnatic violin lessons. Taking Karnatic violin techniques into a collaborative setting in London, case study 1 is based on a series of experimental sessions with Karnatic violinist and teacher Jyotsna Srikanth in London.[13] This rather unconventional example demonstrates how a collaborative model challenged the conventional roles of the *shishya* as subservient to the guru, but subsequently re-established the role of the guru. Case study 2 investigates a session working on a new notation system for Karnatic music: Gamaka Box. This represents another experimental session that disrupts the more gradual process of learning by imitation and offers a point of reflection for viewing the ways of passing on knowledge in traditional *gurukula* teaching.

Chapter 6 moves to my own creative practice in London with additional contributions from Karnatic violinists in two case studies with composers Robert Szymanek *(the bond between)* and Jasmin Kent Rodgman *(Recitations)* that broadly operate within the parameters of composer-performer collaborations. Both case studies constitute works for solo violin with loop pedals and draw on improvisatory processes that integrate elements of Karnatic violin playing with extended technique. The focus for my discussions lies in examining the creative contributions from both Karnatic and Western classical violin teachers, exposing an entangled creative space from which subsequent versions of the piece

[13] The Joan Conway Scholarship in Performance Studies 2015/16 supported my Karnatic violin lessons with Jyotsna Srikanth.

emerged. As a transition to Chapter 6, I return to a group arrangement of *the bond between* to explore the role of Karnatic violin techniques, group interactions and the emergence of a group level of playing. Chapter 7 turns to group practice in London, a field that remains relatively unexplored but which offers significant insight into the sociological and psychological interactions in collaborative cultural exchange. Keith Sawyer's work charts a move away from the individualistic tendencies of creativity studies (see Sawyer and DeZutter 2009), towards a focus on group creativity as a way of understanding the social, collaborative and emergent properties of creative practice (Sawyer 2003b). I draw on Sawyer's work, as well as Georgina Born's four planes of social mediation (2012: 266-7), as a framework for viewing the meditation of my Karnatic violin experiences in groups that do not directly involve Karnatic violinists. It is the co-authored nature of the group process in my final case study that reveals how ways of playing – viewed through the lens of Karnatic violin techniques – can be transmitted through multiple layers of mediation.

To conclude, Chapter 8 investigates a mode of collaborative and professional practice in contemporary music from a performer's perspective within a social-psychological theoretical framework. Drawing Karnatic and Western classical violin techniques together allows the violin to act as a platform for cultural exchange, with the violinist's experiences and ways of knowing being a focus for enquiry. In particular, I question the ways in which my investigations of studying with Karnatic violinists can provide insight into how musicians work together in cultural exchange more broadly. By situating my findings around the violin, broader questions relating to the ways in which people work together can

shed light on a more open ended and less polarised understanding of creative collaboration and cultural exchange.

Chapter 1

Ways of knowing

Throughout the thesis, ways of knowing form a point of focus for examining Karnatic violin techniques in collaborative practice. In particular, I examine the dissemination and mediation of personal knowledge between musicians as a platform for understanding the processes of creative collaboration and cultural exchange. This chapter sets out a theoretical framework for the thesis before outlining my ethnographic methods from both theoretical and practical perspectives. Theories of knowledge set out here inform my own practice throughout the thesis by providing a framework for understanding some of the semiotic and psychological processes that occur in learning and collaborative music making. It is the pathways of personal and shared knowledge that are particularly fruitful for revealing ways in which musicians work together. Employing an autoethnographic approach, this chapter outlines the recent trend towards practice-led research as a method for exposing social and psychological interactions between musicians. I conclude by presenting the ethnographic methods that underpin my fieldwork in India and the UK.

1.1. A theoretical overview

There are a number of different methods for understanding how knowledge is passed from a teacher to a student and between musicians, which I will briefly summarise: first, theoretical perspectives from philosophy and psychology; and second, experiences of embodiment. The Greek philosophers Aristotle, Plato and Socrates first wrote about two categories of knowledge: *epistêmê* – scientific knowledge – and *technê* – the crafts and skills of an art form (Fantl 2017). In a

related vein, philosophers in the twentieth century have drawn attention to the difference between practical and theoretical knowledge; the difference between learning by doing an action versus learning by following instructions (Fantl 2017). Ryle (1945) coined the terms knowledge-how and knowledge-that, drawing a distinction between the knowledge of truth and facts versus that which informs 'ways and methods of doing things' (: 4). In Ryle's terms, knowing the rules of a game is a separate skill from the knowledge required to play it. His aim was to demonstrate that knowledge-how – also described as the 'museum-possession' of knowledge – cannot be defined in terms of knowledge-that – or a 'workshop-possession' of knowledge (Ryle 1945: 4, 16). Similarly, Polanyi pointed out that skilful performers tend not to know how the skills they are executing come into being: a cyclist does not need to know the principles and gravitational forces of cycling to be able to balance on a bicycle (1958: 49).

Following on from the philosophical models of knowledge above, psychologists have more recently also recognised the fact that people use two distinct ways of knowing. In a conceptualisation that parallels that of Ryle, psychologists have distinguished between what they term procedural and declarative knowledge: 'Procedural knowledge is knowledge that is manifested in the use of a skill, whereas declarative knowledge is explicit knowledge of a fact' (Fantl 2017). Psychologists Stanley and Williamson argue against Ryle's differentiation between knowledge-how and knowledge-that, proposing that 'knowledge-how is simply a species of knowledge-that' (2001: 1) – a claim that rests on the view that human action is informed by intelligence. Contrary to Stanley and Williamson's claims, theories and experiences of embodiment point towards

ways of knowing that are more procedural in nature and led by the body rather than cognitive intelligence, as I will outline below. With this in mind, my examples of learning with Karnatic violinists draw on the psychological models of procedural and declarative knowledge, but claim that, in practice, the two categories are valuable when viewed as more of a continuum.[14]

Embodied knowledge

Looking at the ways in which people cultivate the knowledge of a musical instrument, the concept of embodied knowledge can offer a parallel for procedural ways of knowing. Research in embodiment has grown exponentially in the first decade of the twenty-first century, particularly within the cognitive sciences, philosophy and linguistics (see Borgo 2005: 40-49; and Clayton and Leante 2013: 188-194 for a summary of embodiment research). Defined by Raymond Gibbs as 'people's subjective, felt experiences of their bodies in action' (2006: 9), embodied cognition theory questions the polarisation of mind and body and instead provides an ideology for the integrated study of mind and body – described by David Borgo as 'an intelligent body and an embodied mind' (2005: 49). Philosopher Maurice Merleau-Ponty is widely cited for recognising the entangled nature of mind and body, with his example of the blind man's stick:

> The blind man's stick has ceased to be an object for him, and is no longer perceived for itself; its point has become an area of sensitivity, extending the scope and radius of touch, and providing a parallel to sight ([1962]2002: 165, originally published in French in 1945).

While there are many facets to theories of embodiment, (such as religion, the self, consciousness, politics, emotion) Merleau-Ponty's notion of the stick

[14] Approaches to transmitting musical skills and knowledge are also a prominent topic in music education research (for example, see Cox and Stevens 2017).

becoming an extension of the self, provides a compelling parallel for discursive analysis of the violinist's relationship between body and instrument. In Merleau-Ponty's example, the blind man's way of knowing is embodied so that the stick functions as an extension for that embodied knowledge. Consequently, the stick becomes incorporated into, or an extension of, that embodied person.

Drawing on Merleau-Ponty, Francisco Varela et al. advocate a model for 'embodiment as essentially double, in the sense that it is both phenomenological and biological' (1991: xvi). In relation to music, the authors suggest two categories of embodied experience: music-theoretical concepts (such as melody, harmony and tonality) versus cultural behaviours (such as auditory responses, perception of pitch, duration and timbre) (Varela et al. 1991: xvi). Taking all these components as a whole, Carless and Douglas highlight the fact that embodied action is bound up with understandings of musical knowledge (in the broadest sense): 'embodied action – as opposed to disembodied cognitive thought – is part and parcel of the ways by which knowledge and understanding is created through [playing music]' (2009: 35). In parallel with the mind/body division that often pervades understandings of ways of knowing, Downey argues that '[t]heorists of "practice" do not ask how habits are acquired, how techniques feel for the person who does them, or how skills function practically, psychologically, and neurologically' (2005: 207). Practitioners' accounts aim to address some of the questions above, including the work of Rice (1994), Sudnow (2001), Downey (2005), Marchand (2010) and Doğantan-Dack (2011), which seek to reveal the subjective and often implicit nature of embodied experiences.

In particular, Marchand claims that these insights can be revealed only through ethnographic observation:

> embodied knowledge is more than merely skilled practice and performance, […] the body plays a key role in the making and recall of a wide spectrum of knowledge, including the conceptual kind. (2010: S18)

Discourses on ways of knowing and embodied music cognition will be used to frame the otherwise broad and expanding topics of collaborative practice and cultural exchange.

1.2. A global approach

One of the strengths of autoethnographic work lies in the possibilities for exploring the individual and subjective experiences of creative music making, as highlighted above. Social anthropologists Elizabeth Hallam and Tim Ingold propose a process-led perspective:

> Instead of squashing the creative process into an end point, such as the written ethnography […], we can see it as a continuous path connecting places and persons. Those paths are […] ways of knowing. (2007: 244)

Hallam and Ingold's argument focuses on personal and shared ways of knowing as the locus for observing the creative process, rather than the finished product. Looking more closely at ways of knowing in music education offers a framework for approaching my experiences both studying with Karnatic violinists and incorporating Karnatic violin techniques in London collaborations.

The ways in which knowledge is disseminated has been the subject of decades of study, particularly within the field of anthropology. Anthropologist and mason Trevor Marchand draws attention to the fact that '[f]ield-workers [in anthropological studies] customarily record *what* their subjects know, but they

are less inclined to delve into question of *how* we come to know as humans' (2010: S3[15]; original emphasis). I aim to return to the question of how we know throughout the thesis, framed by the concept of 'ways of knowing' from a number of authors including Hallam and Ingold (2007) and Harris (2007). Moving away from a static perspective on knowledge as 'the certainty that phenomena are real and that they possess certain characteristics' (Berger and Luckmann 1971: 13), ways of knowing more closely align with an understanding of knowledge as a continual and emergent process 'under construction' (Ingold 2011: 159).[16] Mark Harris explains how

> a 'way of knowing' is the movement of a person from one context to another [...,] a path to knowledge in terms of an apprenticeship (not in the mystical sense). Knowing [...] is an achievement of work, experience and time. (2007: 1)

Within a process-based understanding of knowledge as ways of knowing is the idea that knowledge – and culture – cannot be transmitted as a complete entity, but 'rather, a communication link is established which then requires an act of re-creation on the part of the receiver' (Bloch 2005: 97). How, then, are ways of knowing communicated and disseminated? I will address this question by looking at two key methods for learning that are fundamental to education across the world: oral and written traditions.

Oral and written traditions

The division between oral and written traditions has strong correlations with the ways in which we learn in different musical traditions. Writing about the

[15] The page numbers in Marchand (2010) are referred to as S1, S2 etc.
[16] Mark Harris highlights the limitations with the single English word for 'knowledge' that lacks a semantic distinction between the knowledge of a fact versus knowing as an ongoing process (2007: 4).

advantages of both methods for learning, Timothy Reagan describes oral traditions as transitory and crucial to understanding culture:

> Oral and written traditions are *different,* and each is useful and valuable in its own right. Neither is intrinsically superior to the other in all ways; each has its own strengths and limitations. (2018: 11; original emphasis)

As a general characteristic, oral traditions tend to rely on more of a blurred relationship between formal and informal training, as well as lessons and practice, in comparison to more formalised written traditions (Merriam, A. 1964: 150). As I will demonstrate in my own lessons studying with Karnatic violinists, the main method for teaching an oral tradition is through imitation. Similarly in studying Balinese gamelan, Peter Dunbar-Hall describes the teacher's direction as consisting of 'repeat, repeat, repeat without any verbal direction' (2009: 157). While these methods of education are commonly associated with non-Western traditions, anthropologist Alan Merriam draws attention to the fact that learning by imitation is more of a global phenomenon in early years learning where young children commonly imitate adults – but this is often replaced by written traditions in formal Western education (1964: 146-7).

In a book entitled *Non-Western Perspectives on Learning and Knowing*, Sharan Merriam and authors (2007) set out a clear distinction between the learning of factual data using written sources that is commonly associated with Western teaching and more 'noncognitive forms of learning such as somatic learning and spirituality' that are common outside the West (Thaker 2007: 57). While Reagan also refers to non-Western educational traditions, he argues that grouping all oral traditions under the term non-Western is a reductionist approach when in fact these ways of knowing do not neatly fit into two geographical categories

(2018: 14). Instead, a more integrative model for understanding ways of knowing distinguishes between indigenous versus formal knowledge, as a way of moving away from the polarised view of Western and non-Western (or Eastern) practices. Reagan proposes that indigenous knowledge tends to be based on oral traditions and 'is culture-specific whereas formal knowledge is decultured' (2018: 356), although even this binary model is arguably also a reductionist perspective. Given that Karnatic music is primarily an oral tradition, the indigenous knowledge of this tradition is closely bound up with wider cultural practices – as I explore in Chapter 4.

Hindu educational practice

Turning to a broad perspective on Indian Hindu culture, an understanding of Hindu educational practices provides strong correlations with the methods for teaching and learning that I experienced with Karnatic violinists.[17] I begin by looking at the broad distinctions that have arisen between oral and written traditions:

> Most musical ritual and artistic expressions were historically linked to two great religious streams of humankind: the expansion of the Vedic Hinduist-Buddhist narratives of 'that which is heard' *(śruti)* in contrast to the monotheistic narratives of 'that which is written' in the Abrahamic revelation traditions of Judaism (Torah), Christianity (Bible), and Islam (Qur'an). (Baumann 2018: 116-7)

Perhaps Baumann's perspective above can provide a framework for understanding the considerable difference in teaching methodology that I experienced in my lessons in India – and warrants further investigation into the nature of Hindu teaching practices.

[17] Although there are many Muslim musicians in India, the violinists with whom I have studied are all practising Hindus. In general, most Karnatic classical musicians follow Hindu traditions.

It is significant that there is no direct equivalent for the word 'religion' found in ancient or modern Indian languages and that the word 'Hinduism' is an English construct (Thaker 2007: 59). With this in mind, Hinduism does not represent a fixed system of beliefs or religious practices, rather 'a way of life but also a view of life' (Chennakesavan 1974; cited in Thaker 2007: 59). What is the significance of this perspective? Having approached my studies in India irrespective of any spiritual context, the concept of Hinduism as a broader philosophical view of life inevitably has had a significant impact on my experiences studying with Karnatic violinists – especially the teaching methods. Exploring this concept of Hinduism further provides a framework for understanding my lessons with Karnatic teachers.

Despite taking multiple forms, the underlying principles of Hindu education aim to create a sense of unity between body and mind, rather than the acquisition of knowledge (Thaker 2007: 58). Consequently, Hindu education is not predominantly driven by goals and objectives, rather focusing on spiritual growth and personal development. Taking the emphasis for learning away from learning facts and figures provides a more compelling case for learning by ear; described by ethnomusicologist Patricia Campbell as a 'modeling-and-imitation strategy [where] the music flows in a direct line from the teacher to the student' (2004: 10). This method for teaching relies on repeated renditions by a teacher, which constantly change and evolve, thus presenting considerable challenges for the student to grasp. However, Thaker highlights the fact that deviations create

multiple versions of a tradition and these variations can be the most informative component:

> The variations […] may reflect the specific interests of a particular time period or region […] This willingness not only to acknowledge, but also to accept such deviations again highlights the importance of honouring multiple perspectives and multiple truths. (2007: 60)

In many ways, learning by imitation relies on 'noncognitive means of knowing' (Thaker 2007: 68) that can be challenging for a student to access, especially when approaching a tradition from a different cultural background.

These discussions on Hindu educational practices highlight the considerable differences in ways of knowing that are deeply embedded in education, ritual, social, cultural and many more contexts. In relation to Balinese gamelan, which is also embedded in Hindu practices, Dunbar-Hall explains his conflicting experiences:

> I was being asked to learn in a way I had not experienced, and it seemed as if through years of learning music in Western ways I had unlearnt a raft of learning strategies. (2009: 157)

Perhaps the unfamiliar experience of learning by imitation can offer insight into the value of oral traditions – the example of the recent popularisation of yoga and meditation in Europe represents the beginning of a move away from relying exclusively on written and formal learning towards more noncognitive means (Thaker 2007: 68). Reagan's argument that oral traditions were once eminent in Western teaching provides a compelling case for moving away from a Eurocentric perspective towards non-Western, or indigenous, ways of knowing:

> Indigenous knowledges are important not just because of the potential value of what is known, but also because they can provide us with alternative ways of coming to know. (Reagan 2018: 355)

In practice, the extent to which developing new ways of knowing is possible is debatable, and is the focus for my discussions in Chapters 4 and 5.

Several practitioners, including Rice (1994), Downey (2005), Marchand (2010) and others describe experiences of embodiment that they encountered when studying in a new cultural context. Given the aim to cultivate a unified relationship between body and mind through imitative teaching, an embodied approach can perhaps provide a point for accessing new ways of knowing the violin in my Karnatic lessons. In a study on song writing, Carless and Douglas explain that

> some kind of embodied action – as opposed to disembodied cognitive thought – is part and parcel of the ways by which knowledge and understanding is created [… W]e see interconnecting elements of music, the instrument and the musician's body, as supporting the *incorporation* of knowledge. (2009: 35: original emphasis)

Tracing and recording the felt experiences in the body provide an autoethnographic framework that can address multiple ways of knowing – and at the same time recognises the significance of embodied knowledge, particularly in relation to studying an oral tradition.

1.3. Experiencing music: a social-psychological framework

A recent trend amongst some ethnomusicologists situates their work under the heading 'experiencing music', where a written document aims to bridge the gap between theory and practice (see Rice 1994). Writing in the foreword of the series 'Experiencing Music, Expressing Culture', the editors embrace a social and process-based approach to world music that 'puts in the forefront the people who make music or in some way experience it and also through it express shared

culture' (Wade and Campbell 2004: viii). If the role of the ethnographer can be to experience music and at the same time communicate that experience to the reader, what are the most appropriate methodologies for conveying the experience? The process-based views of anthropologist Tim Ingold (2009, 2010, 2011, 2013) provide constructive starting points for understanding culture, creativity and knowledge, as shown in recent research including Marchand (2010), Fors et al. (2013), Payne (2015), Pink (2015) and Clarke et al. (2016). My work also draws on Ingold's proposal for a forward-looking approach to understanding creative collaboration, 'as an improvisatory joining in with formative processes, rather than 'backwards', an abduction from a finished object to an intention in the mind of an agent' (2010: 3; see also Hallam and Ingold 2007: 2-3). Within this process-based and practice-led approach, a social-psychological framework can reveal some of the more intricate interactions and exchanges between musicians working together. My focus on personal and shared knowledge, particularly my own cognitive processes when learning the Karnatic violin, requires a psychological framework alongside the more social approach for understanding creative collaboration.

These discourses provide angles for examining the ways in which knowledge is manifested and exchanged in creative performance, which acts as a central thread running throughout the thesis. From an individual perspective, learning music requires negotiating different ways of knowing, which are often implicit and hidden within the craft of the expert teacher. To unpick some of the processes involved in learning with Karnatic violinists, I draw on a distinction between two ways of knowing identified by psychologists: procedural

knowledge that is drawn on in the use of a skill; and declarative knowledge that is based on a factual understanding (Fantl 2017). Whilst musical knowledge cannot be neatly confined within these categories, a perspective from psychology aims to inform the practical experiences of embodied knowledge that I observe in my own practice. Taking a more social perspective from DeNora (2000), Sawyer (2003b), Born (2005, 2010, 2012), Sawyer and DeZutter (2009) and Sennett (2008) offers valuable insight into ways in which people work together in collaborative and group practice. In particular, Sennett's concept of resistance can provide an understanding for accessing the implicit knowledge of a teacher (2008: 214-238). Furthermore, Born's four planes of social mediation (Born 2012: 266-7; see also Born 2010: 232) offer a framework for beginning to understand some of the complex and entangled nature of creative practice, where shared knowledge can mediate between musicians in collaboration in numerous ways. The strength of the work of Born, DeNora, Sawyer and Sennett lies in the move away from a Western-centric approach that has dominated musicology towards an understanding of broader notions of human behaviour and knowledge.

The recent move towards practice-led research in music that forms the starting point and methodological framework for the thesis involves practitioners' accounts in the written document, often acting as co-authors – as illustrated by Eric Clarke et al. (2005) in one of the first studies that provides an integrative perspective from composer, performer and analyst. This article has paved the way for further studies including Fitch and Heyde's (2007) article about their own composer-performer collaboration, several more studies by Clarke writing

with composers and performers (Clarke et al. 2013; 2016; 2017) and Bayley and Lizée's (2016) study of a working relationship with the Kronos Quartet. These accounts aim to draw theory and practice together, drawing parallels with the recent work of ethnomusicologists and anthropologists, to represent what is actually happening in real world interactions between musicians.

1.4. A violinist's perspective

It is important to acknowledge the trend in musicology over the last thirty years towards practice-led research, particularly autoethnography as a method for exploring subjective and personal musical experiences, social interactions between musicians and creative processes (Bartleet and Ellis 2009: 6; see also Ellis and Bochner 1996; and Bochner and Ellis 2016). Defined as 'an autobiographical genre that connects the personal to the cultural, social, and political' (Bartleet and Ellis 2009: 7), autoethnography offers rich insight into the social and psychological interactions that are often unspoken and implicit between musicians in practice. From the perspective of the practitioner, 'autoethnography is defined as deconstruction by the researcher of the relationships between the researcher and his[/her…] research, its aims and objectives, locations, processes, personnel, and outcomes' (Dunbar-Hall 2009: 154). These can be accessed through methods engaging with the practitioner's 'intimate involvement, engagement, and embodied participation' in the field of inquiry (Ellis and Bochner 2006: 434).

Autoethnographic approaches to music have gained momentum as part of a wider move away from relying solely on score-based understandings of music

towards a rethinking of musicological approaches: to view music as performance rather than analysing music and performance as independent entities (Cook 2007: 321). Within this, practitioner-led research has increasingly become a recognised and significant format in academic work, particularly in the fields of collaborative practice and distributed creativity, as stated by Clarke, Doffman and Lim in their article on Liza Lim's 'Tongue of the Invisible': 'research that involves participants as researchers has become a more common means of conducting intensive real-world study' (Clarke et al. 2013: 10). In some cases, incorporating a research phase into a performance project is becoming a new norm for creative collaboration (Clarke et al. 2017: 132). The significance of practice-led research lies in attempts to bridge the gap between theory and practice, to 'somehow resolve the opposition between the theoretical and the practical' (Ingold 2013: 15; see also Schechner 2002: 1; Rink 2004: 37). In addressing the dichotomy between theory and practice, Bartleet and Ellis claim that autoethnography offers rich possibilities for examining creative collaboration in 'culturally insightful ways' that focus on the processes for learning musical skills (2009: 6). Leavy draws attention to the fact that music research up until now has 'more frequently serv[ed] as a subject of social inquiry rather than a tool through which to conduct social research' (2009: 106). What can be gained from an autoethnographic approach to music and what is at stake from its wide scale incorporation into musical studies?

The limitations of using personal accounts as research are highlighted by Mine Doğantan-Dack in a documentation of her experiences as a professional pianist: she conveys how performing experiences are highly personal and can vary from

person to person and between practitioners' accounts and observations by empirical musicologists or music psychologists (2012: 41). In addition, capoeirista Greg Downey draws attention to the fact that

> Ethnographers cannot help but be guided by concerns brought from home, as much as by the people among whom we study. We drag our research questions and theoretical arguments with us like baggage, and they go on to influence what we discover in the field. In the hubbub of everyday life and in the swirl of unfamiliar sensations, our ears prick up when we hear something that recalls our research proposals [...] (2005: 203)

Whilst there are clearly challenges and biases in presenting research from my own collaborations, the insider's perspective, as well as outside observations, offer distinctive autoethnographic insights into practical settings. Practitioners including John Baily (1977, 1985, 2001), Derek Bailey (1992), Timothy Rice (1994), David Sudnow (2001), Stefan Östersjö (2008, 2013), David Henderson (2009), David Clarke (2013) and Kevin Dawe (2013) using their own practice as research, demonstrate the value of subjective embodied experiences that may be exposed through the self-reflective observation of personal experiences playing musical instruments. Engaging with the personal and embodied accounts of music can be one factor in dissolving the perceived divisions between the roles of the mind and the body in ways of knowing and music making.

Focusing on my own practice involving Karnatic violin techniques alongside my training as a Western classical violinist, my experiences offer opportunities for revealing different types of knowledge that can be analysed from an insider's perspective. Of particular relevance is Sarah Pink's multisensory approach to ethnography (visual and sensory ethnography; see 2013 and 2015 respectively), which foregrounds the value of ethnographic methods that engage with the

individual sensory experiences of a craft or skill. Rethinking the definition of ethnography – taking into account that Pink opts for the general term ethnography rather than autoethnography – she suggests an understanding of ethnography

> as a process of creating and representing knowledge or ways of knowing that are based on ethnographers' own experiences and the ways these intersect with the persons, places and things encountered during that process. Therefore visual ethnography, as I interpret it, does not claim to produce an objective or truthful account of reality, but should aim to offer versions of ethnographers' experiences of reality that are as loyal as possible to the context, the embodied, sensory and affective experiences and the negotiations and intersubjectivities through which the knowledge was produced. (2015: 5)

In addition, Bendix highlights how a multisensory approach departs from the traditional observational method of research and instead reveals 'the most profound type of knowledge [which] is not spoken of at all and thus inaccessible to ethnographic observation or interview' (2000: 41).

The approaches endorsed by Bendix (2000), Bartleet and Ellis (2009), Pink (2015) and others offer rewarding avenues of inquiry for accessing my key themes of creativity, ways of knowing and culture in musical practice. Namely, Pink's concept of sensory ethnography offers a fruitful model for examining my own experiences learning with Karnatic violinists by focussing on the felt experiences of re-constructing the violin playing hands. By recognising points of resistance in my new relationship with the violin that can be overcome to create embodied experiences, this autoethnographic approach exposes a multisensory perspective on learning and playing the violin that consequently plays out in collaborative settings with musicians in London. Within the context of my research, the strength of personal accounts can be found when situated within

the theoretical frameworks set out in section 1.3. It is the individual experiences that a number of current musicologists (for example Doğantan-Dack 2011; Clayton et al. 2013; and Clarke et al. 2016) examine as a way of moving away from an abstract understanding of music towards an informed notion of understanding the living body in performance – a perspective that has long been central to ethnomusicology.

Ethnographic methods

My own methods as an ethnographer primarily use audio recordings using a Zoom portable audio device and written notes as the main format for collecting data from Karnatic violin lessons, in addition to video excerpts and footage from two concerts by the Mysore Brothers. As a way of tracing my own progress in these lessons, I recorded and provided a commentary on a number of practice sessions, particularly those when I was faced with ways of playing that were challenging for me to grasp. Throughout the December Music Season 2015/16, in Chennai, interviews were conducted with nine internationally renowned Karnatic violinists who represent the main schools of Karnatic violin playing (see Table 3.1). Turning to my collaborative projects in London, audio recordings were made of the rehearsals, workshops and performances. Given that the majority of my case studies were pre-existing performance projects, it was felt by some of the participants that the presence of video cameras might make the musicians feel more self conscious about their contributions and comments, thus disrupting the creative process. While I acknowledge the rich benefits from analysing the visual data of video recordings (as illustrated in studies by Östersjö 2008; Clarke et al. 2013; Kanga 2014; and Payne 2015), I hope that by respecting

the concerns of the participants, I am able to provide critical reflection on case studies that are as representable of the real world as possible. Recordings of the case studies are included on the accompanying USB; these are made up of a combination of live performances and professional recordings.

Semi-structured interviews with participants – both in person and by telephone – provide a critical body of data and aim to offer a more objective perspective to strengthen my discussions. These interviews followed a course of open-ended questions that elicited responses of various lengths; interviews for case studies 3, 4 and 5 make reference to the notated scores (see the accompanying USB) and case study 6, which is not notated, includes a retrospective response to the first four minutes of a professional recording.[18] In addition, the material from a few interviews with prominent musicians working in related fields of cultural exchange have been included to provide further context: these include contributions from David Harrington (first violinist and founder of Kronos Quartet), Rohan de Saram (collaborator and former cellist with the Arditti Quartet) and Peter Sheppard Skærved (violinist and collaborator).

1.5. Conclusions

This chapter has established social and psychological understandings of ways of knowing as the theoretical framework for examining my own practice. Taking two distinct psychological concepts of knowledge and performer's personal experiences of embodied knowledge alongside a more global approach

[18] Written and/or verbal (recorded) permission was granted from all participants for the inclusion of their contributions in this research following the guidelines and approval for this project by the Central University Research Ethics Committee (CUREC), University of Oxford, in August 2015.

strengthens the case for employing practice-led methods of research. It is the subjective and personal ways of knowing that can provide insight into the ways in which musicians work together in creative collaboration and cultural exchange. In the case of this thesis, the example of Karnatic violin playing offers a lens for viewing an exchange of knowledge that is often unseen and can only be exposed through autoethnography and interviews with musicians. My findings can further inform and build upon theoretical understandings of knowledge, harnessing a co-dependent relationship between theory and practice.

Chapter 2

Karnatic violin techniques in collaborative practice

This chapter provides a critical review of the literature surrounding my field of research, concluding with suggestions for a social-psychological approach to examining Karnatic violin techniques in collaborative practice. As set out in Chapter 1, my research examines the ways in which knowledge is transmitted and mediated through musical encounters involving Karnatic violin techniques. For the purpose of this literature review, I present the existing research in two defining themes, each of which engages with ways of knowing and notions of embodied knowledge within my field of interest: i) craft in creative collaboration; ii) cultural exchange. These broad and overlapping topics draw on and highlight the strengths and limitations of studies from anthropology, cultural studies, ethnomusicology, performance studies, psychology and sociology – while also acknowledging the significance of live and recorded musics that are at the forefront of my field. In light of this, as well as additional perspectives from interviews with string players working in related areas, I propose and critique the term collaborative cultural exchange as a window for investigating social and psychological interactions between musicians. Before concluding, I turn to musical practice and the iconic 1960s collaboration between violinist Yehudi Menuhin and *sitar* player Ravi Shankar as a pertinent precursor to my case studies involving the encounters between Indian and Western classical violin playing. I conclude by setting out a social-psychological framework for the thesis based on the rich and wide-reaching body of literature, while proposing the contribution that my own work can make to the field. To begin, a brief review of

the literature on Karnatic classical music, including the violin in India, provides the context for the rest of the thesis.

2.1. Karnatic classical music

Before discussing the violin in India, it is important briefly to acknowledge the trend in ethnomusicology to focus on Hindustani music, with significantly less research on Karnatic music.[19] Karnatic classical music represents one of four broad categories of music in South India, along with temple and dance traditions, folk music and popular music that has emerged from the film industry (Reck 2000: 351). Live performances outside India predominantly feature Hindustani music, possibly reflecting the larger number of Hindustani musicians living outside India and consequently greater familiarity in Europe with the music of Northern, rather than Southern, India. Some fundamental sources on the key elements of Indian classical music, such as *rāga* and *tāla*, provide a broad conceptualisation for the role of the violin in India; these include the Garland Encyclopedia of World Music (Arnold 2000) and the work of authors Harold S. Powers (1965), Daniel Neuman (1980), Bonnie Wade (1984), Richard Widdess (1989, 1995), Jonathan Katz (1992, 2014) and Ludwig Pesch (2009) among others. While it is beyond the scope of my research to delve into the details of

[19] The classical music of the South Asia today comprises two different systems of music broadly determined by geographical location: Hindustani music in the north (which includes the regions that are now Pakistan and Bangladesh) and Karnatic in the southern states of Tamil Nadu, Karnataka, Kerala, Andhra Pradesh and Telangana. Both musical genres are based on the *rāga* and *tala* systems, but with different instruments, ornaments and varying degrees of improvisation. Farrell outlines how the music that is now called 'Indian' is wide reaching across the political and geographical borders that were implemented in the 1947 Partition (2001: 56). See Powers (1958), Wade (1983), Arnold (1994), Viswanathan and Cormack (1998), Ruckert (2004) and Lavezzoli (2006) for more details on the distinctions between Hindustani and Karnatic musics.

pitch, rhythm, composition and improvisation in Indian classical music, the glossary includes essential terminologies in relation to my violin lessons.

Following the trend over the last decade to move towards an embodied approach to music, several studies of Indian classical music have analysed social behaviours between musicians. Observations of Hindustani musicians include the close examination of embodiment in performance (Clayton and Leante 2013), hand gestures of vocalists (Fatone et al. 2011) and social co-regulation and communication (Moran 2013). Insights from performing string players include Neil Sorrell and Ram Narayan's (1980) writing on the *sarangi* and Stephen Slawek's (2000) work on *sitar* techniques. More personal accounts are limited to David Clarke's (2013) discussion of the notion of resistance while learning the *khyāl* vocal style. Through looking at Hindustani music in relation to modernity in South Asian and Western cultures, Clarke aims 'to externalise and theorise the inner personal dialogics that I have experienced from practising in two seemingly very different cultural traditions' (Clarke, D. 2013: 177). Clarke's concept of resistance focuses primarily on cultural interactions and can be used as a springboard for my research seeking physical sites of resistance, particularly in relation to the use of an external object: the violin.

Turning to the more limited resources on Karnatic music, a few guides to Karnatic music outline the *rāgas* and instruments, such as S. R. Janakiraman's (2008) book detailing the fundamentals of South Indian music, vocalist T. M. Krishna's (2013) account of Karnatic music in South India today looking at the ways in which it intersects with Hindustani and popular musics in India, and

introductions to the music of South India by Tanjore Viswanathan and Matthew Allen (2004) and P. Sambamoorthy (2005). These are broadly historical and theoretical accounts that fail to extrapolate the finer details of musicians working together in the Karnatic tradition. Although occupying a different focus from my research, Rafael Reina's (2015) transcriptions and analyses of Karnatic rhythmic techniques demonstrate how musicians in Europe are beginning to adopt elements of Karnatic music for varying purposes. With vocal music providing the foundation of Karnatic music, and the most commonly performed compositions all written by renowned singers, the sources above all reference the violin as the main accompanying instrument for Karnatic vocalists, rather than as a solo instrument.

The violin in India

There is a huge literature on the European violin as an instrument, documenting its development, materiality, players, works and technical treatises, including the pedagogical accounts by Leopold Mozart (1951, originally published in German in 1755), Baillot (1991, originally published in French in 1834; see Stowell (1985: 368) for an extensive list); and also guides to violin playing by eminent twentieth century violinists and teachers including Galamian (1964), Flesch (1966), Yampolsky (1967), Szigeti (1969), Boyden (1990) and Fischer (1997, 2004). While I will not attempt to summarise such an extensive literature, I will make use of select sources to underpin my own understanding of the instrument built up through my training as a Western classical violinist. Focusing on the formative years of violin playing spanning 1760 to 1840, Stowell exposes the limits of the early treatises, which fail to portray the technical developments of

their immediate times (1985: ix). This detailed analysis from a performer's perspective convincingly amalgamates the many different sources within the musical demands of the time, whilst also drawing attention to the lack of any plausible discourses on contemporary – and extended – violin techniques that have developed in the twentieth and twenty-first centuries (see Strange 2001 and Zukofsky 1992 on extended violin techniques). Stowell also refers to the violin treatises as fundamentally technical and therefore 'non-creative' (1985: ix), prompting questions about the relationship between technique and performers' creativity. To address these and other questions, I will focus on the integration and function of Karnatic and Western classical violin techniques in creative practice.

There are several accounts of the arrival of the violin in India, which are closely linked within the social and political context of eighteenth century India in Amanda Weidman's succinct account (2006: 25-31; see also Sorrell and Narayan 1980; Swift 1990; Viswanathan and Allen 2004). The tuning, playing position and fingering technique have all been modified to suit Indian music and the last hundred years have demonstrated how violin techniques in South India have developed through the violinist's role accompanying and collaborating with other instrumentalists. It is worth noting that none of the mentioned authors highlight any drawbacks in holding the violin in the Indian posture. While this position is commonly acknowledged for generating greater flexibility for the left hand (due to not having to support the instrument with the left hand or shoulder), it is important to consider the restrictions on the bow arm, which can become cramped, as well as the dampening of the sound through the contact

between the scroll and the violinist's right foot. Looking in more detail at the ways in which left-hand movements correspond to specific *gamakas* (ornaments or embellishments[20]), Gordon Swift (1990) outlines how violinists execute the most frequently used *gamakas* in Karnatic music. His comparison with Yehudi Menuhin's description of Western classical violin techniques, such as shifting and vibrato, highlights how Karnatic violin techniques serve purposes different from equivalent Western classical violin techniques, despite using the same instrument (Swift 1990: 81). Another source is a technical treatise of limited quality on Karnatic violin techniques by violinist Dr M. Lalitha.[21] While her account of Karnatic techniques is formidable from a performer's perspective, the descriptions and comparisons with Western classical violin techniques are rather basic in their understanding of Western classical violin techniques (Lalitha 2004).

Amanda Weidman's (2006, 2008) writing provides an insightful account of South Indian music, focusing on the ways in which the adaptation of the violin to Indian music is closely integrated with the social and political climate of postcolonial India. Using the metaphor of a ventriloquist to describe the imitative qualities of the instrument, Weidman claims that:

> the Karnatic violin stands at the center of a complex set of mimetic relations between instrument and voice, India and the West, colonizer and colonized. The mimetic capacity of the violin guarantees the authenticity of the Karnatic voice, as a colonial instrument is used to ward off – and ultimately redeem Indian music from – the effects of colonialism. (Weidman 2006: 58)

[20] See the glossary for a definition.
[21] Cited here in the format of the original source – the author's first name is not given.

Weidman argues that the Karnatic violin can be described as having 'gone native' due to being adopted and adapted – musically and politically – to such an extent in South India (Weidman 2006: 57).

Through the increasing access to travel and online resources, many Karnatic violinists today incorporate techniques from Western classical violin playing as well as Hindustani music, which supports my decision not to focus exclusively on Karnatic music, but instead to view the violin as an instrument that acts as a bridge between Karnatic, Hindustani and Western classical musics (as well as many other musical traditions such as traditional folk and jazz). My own interviews with violinists in South India highlight how the majority of performing Karnatic violinists also play in the Hindustani tradition; violinist Mysore Nagaraj explained to me how he adjusts his style of playing depending on the audience.[22] The way in which the violin can combine characteristics from different musical traditions has not been widely documented, with the exception of a Masters thesis by the violinist Ambi Subramaniam (2014), who is the son, student and co-performer of the internationally acclaimed Karnatic violinist Dr L. Subramaniam. His thesis is predominantly a factual account of the ways in which the violin has adapted to Asian cultures, but leaves unexplored the possibilities of the violin as a mechanism for connecting cultures (despite the title of the thesis: 'Connecting Cultures Through The Violin'). However, the detailed descriptions of violin techniques from different schools of playing provide a rare insight from a world-class Karnatic performer (2014: 44-62). Ambi Subramaniam's undeveloped claim that the violin is inherently a

[22] Interview with Mysore Nagaraj, 15 January 2016.

collaborative instrument due to its adaptation to Indian music (2014: 115-7) supports the view of the instrument as a vehicle for cultural exchange. It is the adaptive, transportable and collaborative qualities of the violin as an instrument that provides a platform from which to integrate Indian and Western classical musics.

2.2. Craft in creative collaboration

While there is a scarcity of research linking skill with musical collaboration, the work of sociologist Richard Sennett (2008, 2013) and Ingold (2009, 2011, 2013) is particularly salient for establishing an approach to discussing craft.[23] Considering definitions of 'craft' and 'technique', several authors (including Payne 2015) adopt the term craft to link instrumental technique to creative processes in collaborative practice. While both terms are often interchangeable with 'skill', 'technique' focuses on a more formal or practical skill in a particular field, whereas 'craft' relates more noticeably with the skill in making things by hand. Robin Stowell's suggestion that technical violin treatises are ultimately 'un-creative' (1985: ix) further highlights the more creative realm of craft. However, Sennett posits an alternative, practitioner-orientated perspective:

> Technique has a bad name; it can seem soulless. That's not how people whose hands become highly trained view technique. For them, technique will be intimately linked to expression. (2008: 149)

With this in mind, I differentiate between the practical and formal learning of technique on one hand, and the broader concept of a craft that can draw on

[23] Payne highlights the gendered associations with the terms 'craftsman' and 'craftsmanship', which are found in the work of Sennett and Ingold (2015: 52-3). She adopts the gender neutral 'words 'craft' in place of 'craftsmanship', and 'practitioner' as an alternative to 'craftsman'' (Payne 2015: 53), which are expanded with definitions and implications in relation to collaborative practice.

techniques from various different ways of playing (for example, in the collaborative projects in Chapters 6 and 7). I situate these definitions in relation to my discussions of the literature surrounding craft in collaborative practice: first, by looking at practice-led writings on collaborative processes; and second, through research that explores the knowledge of craft.

The body in performance

In identifying the ways in which Karnatic violin techniques can bring about new physical possibilities for violinists, I draw on literature that seeks to unpick the relationship between performer and instrument. Taking Michel Foucault's (1988) writing on the technologies of the self into sociological, cognitive and anthropological domains, authors Tia DeNora (2000), Marc Leman (2008) and Tim Ingold (2010, 2011) posit phenomenological perspectives on the body and technologies.

Marc Leman describes how tools can form an extension to the body, with the interactive nature of musical instruments mediating between mind and body (2008: 138). The concept of extending the body comes to fruition in Tia DeNora's illustration of the endogenous and exogenous features of the body, questioning where the 'body' ends and 'environment' begins (2000: 75). She suggests that:

> the study of human-music interaction […] reveals the subject, memory and, with it, self-identity, as being constituted on a fundamentally socio-cultural plane where the dichotomy between 'subjects' and 'objects' is, for all practical purposes, null and void. (DeNora 2000: 67; see also Clayton 2008: 41; and Siderits et al. 2011: 27 for further discussions on the relationship between body and self.)

Placing subject and object, or body and instrument, on an equal plane, leads to the notion that objects possess agency (demonstrated with an example of the agency of speed bumps that causes drivers to slow down – see Ingold 2013: 96). Objects possessing agency through an extension to the body provide one way of viewing the relationship between musicians and their instruments. Namely, this research is primarily concerned with the tactile, kinaesthetic, auditory and optical perceptions of playing a musical instrument (see Ingold 2011: 133-135 on haptic and optical perception), as opposed to the ways in which musicians' gestures transmit a notion of embodied experience to an audience.[24]

Turning to specific examples of performing musicians, the underlying aim within embodiment research is to access the physical experiences of learning and performing music. Several performers' accounts locate embodied knowledge as being dominated by the hands, which serve as a point of exchange between body and environment, or subject and object: 'The *hands* seem to have a privileged role in music […] hand movements are closely linked with reason and expression' (Godøy 2010: 109; original emphasis). The hands represent a point of contact and consequently a site of transmission between the body, mind and instrument, as revealed in David Sudnow's reflective account of learning jazz piano: 'I sing with my fingers […] for there's a new being, *my body,* and it is this being […] that sings' (Sudnow 2001: 130; original emphasis). Sudnow's account suggests that the way in which the hands (or fingers) serve as a go-between, allows the emergence of the singing body: a personification of the body and a

[24] There have been several studies on the gestures of North Indian classical musicians – predominantly vocalists – for example Slawek (2000 and 2012); Napier (2007); Fatone et al. (2011); Clayton and Leante (2013); and Moran (2013).

union of subject and object (body and piano). Pianist Mine Doğantan-Dack's ethnographic and phenomenological account also locates musical knowledge and expression in the 'singing hand' and the 'singing touch' (2011: 256-8). She suggests that the notion (or illusion) of the pianist singing allows the performer to become embodied in the music.[25]

Violin-specific accounts are less widely documented than those of the piano, with the exception of Jane Davidson's (1993) subjective study of expression in response to visual information in performances by undergraduate violinists (see also Schelleng (1973) and Guettler (2003) on bowing gestures in string playing). Broadly speaking, it is the introspective accounts of performers such as Sudnow (2001) and Doğantan-Dack (2011) combined with a theoretical framework of embodied knowledge that will be used to access the physical experiences of violin playing in my research, with a focus on the way in which technical and acoustic possibilities emerge as a result of the embodiment of an instrument (Borgo 2005: 37).

The work of anthropologist Tim Ingold (2009, 2010, 2011, 2013) is particularly engaging for an integrative approach to investigating the agency of objects in creative activities. Having endorsed Ingold's forward-looking approach to creative collaboration in Chapter 1 (2010: 3), I argue that this understanding also informs the ways in which people work with objects and together in cultural exchange, as explained in the following extract:

[25] Other considerations in relation to the physical experience of the body in performance include the constraints of the body (see Cook 2013a: 295) and the notion that pain represents 'the edge, the defining moment of embodied experience' (LeGuin 2006: 10).

> If we think of every participant as following a particular way of life, threading a line through the world, then perhaps we could define the thing […] as a *'parliament of lines'*. Thus conceived, the thing has the character not of an externally bounded entity, set over and against the world, but of a knot whose constituent threads, far from being contained within it, trail beyond, only to become caught with other threads in knots. (Ingold 2010: 4)

Could Ingold's understanding of the instrument as 'a parliament of lines' prompt a different reading for the cultural understanding of the violin, particularly in relation to its role and significance in the Karnatic and Western classical traditions?

Practitioners' perspectives on collaborative practice

Using work by performers and composers, the commonly used term 'performance studies' is problematic in the way it takes the emphasis away from the study of composition and the creative process, when in fact the two are interlinked in the literature I will discuss. Based on the composer Helmut Lachenmann's model of 'building an instrument', Fabrice Fitch and Neil Heyde (composer and cellist) describe their creative exchange as if the composer becomes an imaginary instrumentalist while, paradoxically, the performer takes on some of the compositional contributions (2007: 92). In stating this point, the authors suggest an alternative to the traditional composer-performer model found in Western classical music, but continue to work in a more conventional format, with the performer providing the composer with technical suggestions and inventions, while the composer creates the material and ultimately the score. Other insights into composer-performer collaborations include: Amanda Bayley's (2010b) writing on the interactions between Michael Finnissy and Kreutzer Quartet; cellist Rohan de Saram with the Arditti Quartet and composers

including Luciano Berio and Iannis Xenakis (Steinheuer and de Saram 2013); composer Liza Lim in a piece for solo bassoon (2013); composer David Gorton and violinist Peter Sheppard Skærved (2014); pianist Zubin Kanga with a variety of composers (2014); and a recent edited volume on distributed creativity that includes chapters by several of the authors and practitioners above (Clarke and Doffman 2017). The study with the most salient discussion of creative exchanges and interactions between musicians is an investigation of the rehearsals and performance of a composition by Liza Lim (Clarke et al. 2013). It is both the improvisatory elements of the piece and the interviews with the musicians that provide insights into the creative process from multiple perspectives, while the authors use these insights to inform views on the creative process. Identifying 'ways of activating, or allowing for, different 'threshold states' in the performers' (Clarke et al. 2013: 6) opens up possibilities for exposing the transitory points of creativity in performance.

Drawing on the work of Richard Sennett, co-authors and practitioners Sarah Callis, Neil Heyde, Zubin Kanga and Olivia Sham (2015) distinguish different modes of creative interaction in collaboration: a 'border' as a site of live exchange, as opposed to a 'boundary', which is a more defined and restricted 'edge where things end' (Sennett 2008: 227). The meeting of cultures in collaboration can also be differentiated in Sennett's terms as a border rather than a boundary, with the site of exchange being partly defined by the encounter between the different environments, or in this case, traditions: 'constructing live edges – between materials, instruments, players, composers – offers sites where resistance can become an efficient and practical tool for the making and

remaking of musical notes' (Callis et al. 2015: 25). Of most relevance, in this article, is the collaboration discussed by Zubin Kanga, which is the only example of working with a living composer. While the performers' perspectives are insightful, the limitations of the article by Callis et al. lie in the single perspective of all four accounts, which do not take account of viewpoints from other participants (or audience members).

In a study examining a collaboration between a composer and violinist, Clarke et al. (2016) present a detailed qualitative and quantitative study of embodied cognition in collaborative practice. Illustrated with first-hand material from rehearsals, performances and interviews with the composer and violinist, the authors identify ways in which embodiment emerges in a number of different forms (Clarke et al. 2016: 159). The different functions of embodiment within musical collaborations can briefly be summarised as: (i) the body as a 'conduit for knowledge' in relation to instrumental techniques, or craft; (ii) the body as a manifestation of the absorption of the music; and subsequently the embodied experiences of (i) and (ii) leading to new opportunities for the collaborative process itself (Clarke et al. 2016: 159). The insights gained through this close examination of collaborative practice, within the broader context of social-psychological theories of creative processes, demonstrate the value of adopting an embodied perspective on music as performance.

2.3. Cultural exchange

I now turn to cultural exchange as a site for examining the relationship between the Karnatic and Western violins – and drawing on understandings of cultural

knowledge as a way of unpacking the term culture. As a valuable starting point, Clifford Geertz (1973) defines culture as:

> an historically transmitted pattern of meanings embodied in symbols, a system of inherited conceptions expressed in symbolic forms by means of which [people …] communicate, perpetuate, and develop their knowledge about and attitudes toward life. (1973: 89)

Anthropologists, including and Hallam and Ingold (2007) and Reagan (2018), have recently rejected an objective view of culture and instead suggest that culture is accumulative and learned rather than inherited (Reagan 2018: 18). These anthropological perspectives favour a process-based and interconnected understanding of culture – as well as ways of knowing and creative music making as outlined in Chapter 1.

In a similar vein, endeavours to view music as performance, set out in Chapter 1, sit alongside an ethnomusicological move towards the study of music as culture, as opposed to music in culture (Bohlman 2013: 38). Such expansions in the study of music coincide with a wider movement for musicologists to question the Western-classical orientated perspectives that dominate the study of music. Some ethnomusicologists have established alternative perspectives, such as Laudan Nooshin's attempts to break down the notion of 'Other-ness' in referring to non-Western musics (Nooshin 2003; see also Ingold 1994; Qureshi 1999; and Hesmondhalgh and Born 2000). Drawing on the writing of Philip Bohlman, Georgina Born presents a case for breaking down, or exploding out, the meaning of musicology by embracing the social and cultural dimensions of music within 'new, integrated music studies' (Born 2010: 206; see also Clayton et al. 2012). My approach fits broadly within the sphere of Born's integrated musicology,

drawing on aspects of sociological, psychological and anthropological discourses with a focus on social-psychological methods for analysing collaborative cultural exchange (as set out in the previous chapter and taken further in relation to improvisation in Chapter 6). Beginning by outlining my key terms, I discuss the issues and considerations to take into account when studying and engaging with cultural exchange, and conclude this section by focusing on the concept and significance of cultural knowledge.

Definitions

Having set out a definition for the umbrella term 'cultural exchange' in the Introduction to the thesis, I now justify my terminology in light of alternative models. Given the increasingly globalised (to use a loaded, but commonly used term) nature of today's society, particularly in London, musics that emerge from cultural exchange are becoming increasingly more prevalent and recognised within the music industry. The synthesis of musics from different traditions has been categorised by Gary Weaver who distinguishes between cross-culturalism and interculturalism: 'cross-cultural communication involves comparing and contrasting cultures while *intercultural* communication includes the actual interaction of people from various cultures' (1998: 5; original emphasis). Drawing on Weaver's proposals, Jason Stanyek's writing on pan-African jazz exemplifies the features of both definitions:

> John Cage's incorporation of Eastern philosophy into his music might best be seen as an instance of cross-cultural influence, while Gillespie's work with Pozo could be more appropriately viewed as face-to-face collaboration that took place within the interculture of the African diaspora. (2004: 90)

The term interculturalism has become more widely used in recent years as an alternative to cross-culturalism and multiculturalism, endorsed by Ric Knowles for the ways in which ''intercultural' evokes the possibility of interaction across a multiplicity of cultural positionings, avoiding binary codings' (2010: 4).[26] Instead, interculturalism engages with the spaces between cultures:

> Understanding the processes involved in intercultural music-making requires exploring the space between cultures, as defined by the prefix 'inter'. This space takes a different shape for each collaboration because it is determined by the individuals involved as much as by the cultures themselves. (Bayley and Dutiro 2016: para. 1)

While creative collaboration is often located in the space that emerges between cultures, a binary understanding of cultures is still ubiquitous in intercultural perspectives.[27]

Although the definitions of interculturalism above offer a more compelling term than many alternatives, the definitions highlight the fact that all the terms are in some ways problematic. In relation to Weaver's (1998) and Stanyek's (2004) definitions above, interculturalism does not account for the fact that collaborative practice in the twenty-first century (including my own) is often not limited to face-to-face interactions. Taking account of these significant distinctions, I suggest that there are many possible cultural exchanges that can be situated in between cross-cultural influences (as in the John Cage example above) and the face-to-face exchange of interculturalism. While cultural exchange is also a problematic term, I use it by way of acknowledging the

[26] See Slobin (2000: 61-68) for three types of interculturalism. See also Cantle (2012) and Burnhard et al. (2016).
[27] Sandeep Bhagwati (2018) proposes the term trans-traditional as an alternative to those discussed here; whether trans-traditional can resolve the binaries that are intrinsic to the other terminologies remains debatable.

combination of cross-cultural, intercultural and many more models of working that are present in my own practice. While it is impossible to entirely isolate one culture or musical tradition from another,[28] my research focuses on the meeting point between two musical traditions (Karnatic and Western classical), as a site of collaboration that is continually moving and developing. In practice, musicians often engage with multiple forms of communication and working methods that contribute to creative collaboration.

It is important to briefly mention the contribution of live and recorded music in the field as the starting point for my studies and experiences with musics that emerge from cultural exchange. There are numerous examples, including a wealth of artists who have performed at the world music festival WOMAD[29] in recent years. Genre-crossing and intercultural groups include Ukranian group DakhaBrakha, who describe their music as 'ethnic-chaos' and 'transnational'; and the UK based band, Lokkhi Terra, whose music has been described as Bangla-Afro-Latin-Jazz. Lokkhi Terra evolved after pianist and leader

> Kishon Khan noticed a synergy between the rumba on the streets of Havana and baul music in the melas of Bangladesh. This strange connection would make more sense back in London, where communities hang out together – learning and sharing their different musical heritages. The result is Lokkhi Terra. (Khan 2014)

Given the lack of literature on these musics, a summary of the genre- and culture-crossing nature of jazz will also provide a starting point for my own work.

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[28] In his discussion on hybrid musics, Stokes proposes that 'every element of a hybridized style is itself a hybrid, a bricolage of previous encounters, assimilations, and blendings' (2012: 111).
[29] An acronym for 'World Of Music And Dance'.

One account of music that fuses different cultural traditions to create a new genre of music can be found in an article outlining the global influences of jazz (Hargreaves et al. 2012). The cultural shifts in the 1930s were arguably one of the most exciting times in the history of jazz – for many reasons including tensions in the early twentieth century, such as class and race, which were confronted by musical encounters. Ingrid Monson has also exposed movements in jazz in the 1950s where musicians looked 'eastward in their search for musical liberation from the restrictive harmonic progressions of earlier bebop' (1998: 163). While not making a comparison between current cultural exchange in London and the evolution of jazz, the analytical and psychological accounts of the authors cited above offer a broad and historical contextualisation for my discussions of cultural exchange.

A few sources provide insight into collaborative cultural exchanges from the perspective, or the close observation, of performers – particularly an article investigating the cross-cultural collaborations of the Kronos Quartet by Amanda Bayley (2017; see also Bayley and Dutiro 2016; and Bayley and Lizée 2016). Through observing the collaborative process, the Kronos Quartet recognise how 'the conventional roles of composer and performer are blurred when musicians work together across different cultures' (Bayley 2017: 98). Bayley's focus on locating creativity in this process suggests that 'the focus on notation points towards creativity residing in the stages that precede performance' (Bayley 2017: 100). However, this account is reliant on the fact that the Kronos Quartet use notation that is created by a composer-arranger, which subsequently decreases the quartet's involvement in the collaborative process as the input

from an arranger reduces the cultural exchanges between the two groups of musicians. Using a notated score as a fixed component while working with musicians from an oral and unfixed musical tradition arguably restricts improvisatory and creative exchange during performance. This is one example that highlights possible challenges for working in collaborative cultural exchange.

Issues and considerations

In response to the ubiquitous nature of cultural exchange in musical practice, scholars have highlighted significant issues of cultural appropriation, exoticism and orientalism. These often result from the systems of domination and oppression that have governed the world through colonial – and now postcolonial – interactions between different cultures. In particular, the question of how difference is negotiated both within and beyond music has been the subject of debate for postcolonial studies where the '*representation* of difference is recognised as a site where power and knowledge are already mutually implicated' (Solomon 2012: 221; original emphasis). In a book that questions the relationship between the music of the West and the rest of the world, Georgina Born and David Hesmondhalgh open with a number of pertinent questions, including:

> How should we conceive of difference in music? […] What is implied by attending to the *boundaries* of musical-aesthetic discourses inherent in th[e] notion of representing or appropriating music or culture *in* music? (2000: 1; original emphasis)

As the authors point out, it is the ways in which Western musics have borrowed and appropriated non-Western cultures that is the topic for these discussions in

light of ethnic, racial and cultural differences and power relations in a postcolonial era.

The postcolonial theories found in the seminal works by Edward Said (1978), Gayatri Spivak (1988) and Homi Bhabha (1993, 1994; see Moore-Gilbert 1997: 16-21 for an overview) provide a starting point for understanding issues and considerations surrounding cultural exchange in music today.[30] In a book on orientalism, Said breaks down the concept of orientalism by arguing that the notion of difference between East and West is a Western construct by way of an attempt to define European culture (1978). Turning to music and the fact that the early history of ethnomusicology was embedded in the history of colonialism (Solomon 2012: 235), Said's notion of orientalism and the divisions between East and West are still widespread – in both theory and practice. Louise Meintjes draws attention to the problematic nature of many previous musicological methods that used Western classical analysis as the standard to measure all musics against (2006: 770; cited in Solomon 2012: 236) – which draws parallels with Qureshi's calls for a move that incorporates 'other musicologies' (1999). Clearly there are significant issues in the ways in which we conceive of and write about music that still persist, forty years since Said (1978) paved the way for reconsidering 'the imperialist foundations of Western civilization' (Qureshi 1999: 311).

[30] See also Pierre Bourdieu (1993) on cultural production, Jean Baudrillard on belonging to a culture (Redhead 2008), Tenzer and Roeder's attempts to define world music in today's interconnected world (2011) and Agawu (2003) for a postcolonial critique of ethnomusicology.

Turning to live music, the questions of exploitation and appropriation have been debated (in scholarship, the media and in a court case) in the iconic and complex case of Paul Simons' 1986 album 'Graceland' (see Meintjes 1990 for the debate on cultural appropriation in Graceland). The example of 'Graceland' can be seen, on one hand, as a 'justification of the present' situation in 1980s apartheid South Africa with Simon breaching the cultural boycott, while, on the other hand, as 'the gateway to the future' of intercultural music making in the ever-increasing interconnected world (Meintjes 1990: 56-7). The location of the 'Graceland' recording sessions taking place in apartheid South Africa and Simon's inconsistent acknowledgements of his collaborators (both in terms of authorship and financially) reveal serious evidence of the exploitation of black South African musicians.

Looking at the effects of cultural exchange on music aesthetics, John Hutnyk has written highly critical accounts of hybrid musics and in particular the complexities of world music, crossover music and the WOMAD festival, which he compares to a contemporary version of the nineteenth century Great Exhibitions (1998: 402). Hutnyk claims that crossover musics dilute and lose the political edge that is often present in traditional world music, while also potentially exoticising traditional cultures or failing to represent a particular culture. Contrary opinions are demonstrated in his example of Bob Marley: 'it was the reggae of Bob Marley which provided a crossover music able to articulate a critique of colonialism and repression, which gave young audiences in England a chance to make sense of themselves in post-imperial Britain' (Hutnyk 1998: 404). As with Bob Marley providing a voice for the British youth, Martin Stokes

emphasises how the globalized term 'world music' can provide possibilities for musicians to break away from the confines of a musical genre or geographical tradition, quoting how Malian musician Salif Keita argues: 'I play world music, not African music' (Stokes 2012: 110).

Taking postcolonial theories alongside practitioners' accounts, it is important to recognise the fact that musicians never work in a cultural vacuum (Taylor 2007: 6), but instead have decades, or even centuries, of cultural influences that are embedded in musical systems. To address this, as well as the issues set out above, I turn to the work of ethnomusicologist Thomas Solomon who calls for the decolonising of musicology (2012: 217). To achieve this, Solomon suggests an embodied, experience-based approach to musicology and ethnomusicology for a postcolonial era:

> Because of the way it gives material presence to identity through embodied performance, music is a particularly productive, if as yet somewhat untapped, site for focusing on the complexly intertwined processes of difference, representation and subjectivity. (2012: 224)

With the focus on the felt experience, musicians engaging with autoethnographic fieldwork can contribute to the postcolonial theorisation of difference (Solomon 2012: 224). However, Solomon does not highlight the limitations of such subjective accounts when viewed in isolation, as discussed in Chapter 1.

Cultural knowledge

Turning to cultural knowledge and the ways in which it is transmitted, I draw on two interrelated fields of enquiry: i) Ingold's (2010) forward-looking notion for cultivating knowledge; and ii) an embodied approach to cultural exchange.

Csordas proposes that an understanding of the body as a cultural phenomenon provides potential for 'a critical methodological opportunity to reformulate theories of culture, self, and experience, with the body at the center of analysis' (1994: 4). Similarly, DeNora sets out a shift in focus in her embodied approach, from the way in which individuals experience culture towards how they 'mobilize culture for being, doing and feeling', as well as seeking to depict how cultural materials infiltrate into social and psychological life (2000: 74).

Writing from a performer's perspective, Swedish guitarist Stefan Östersjö gives a technical account of his collaboration with a Turkish composer and electronic musician (2013). Östersjö's focus on the embodied experience of using the collaborative platform as a space for mutual learning, as opposed to an end-gaining result, gives insight into an individual experience of collaboration. He observes different forms of creative engagement based on the physical experiences of the performer: the '*habitus* of the technician' versus the 'flow of pure resonance' (Östersjö 2013: 212); and suggests that collaborative cultural exchange takes place at a point of tension between the two. In a more binary approach in comparison with Östersjö's notion of resistance and flow, a study by Pandora Hopkins analyses the responses of three professional violinists from Indian and Western classical violin traditions listening to recordings of the Hardanger fiddle: 'Perhaps it would be closer to the truth to adopt the concept that any time we hear a piece of unfamiliar music, we perceive it automatically through comparisons with familiar music' (1982: 158). In general, Hopkins' proposal is not supported with critical responses from her participants. However, the value of her conclusions lie in the parallels that can be drawn with

the experiences of playing a familiar instrument with an unfamiliar approach, as I will investigate in relation to Karnatic violin playing in Chapter 4.

Further insight can be gleaned from Ingold's (2011) ecological view of knowledge in contrast to something that can be objectified and transmitted. He argues that people grow into knowledge rather than acquiring it ready-made and proposes that it is a process of 'wayfaring, not transmission, that knowledge is carried on' (2011: 162). Furthermore, Ingold claims that:

> precisely because knowledge […] is open-ended rather than closed off, because it merges into life in an active process of remembering rather than being set aside as a passive object of memory, *it is not transmitted.* That is to say, it is not passed on as a compendium, of information from one generation to the next, but rather subsists in the current of life and consciousness. (2011: 161; original emphasis)

In reference to studying Indian classical music, Neuman coins the phrase 'real "knowing"' (1980: 32), which invites a new dimension to understanding ways of knowing, perhaps in line with Ingold's concept that people grow into knowledge. The concept of real "knowing" cannot be handed over from teacher to student and does not happen in the early stages of learning, but emerges over time through social and cultural interactions, as I will explore in relation to traditional teaching in India in Chapter 5.

In light of the literature discussed above, it is important to recognise that cultural exchange is not a new concept in music, but arguably permeates all musics. To illustrate my point, I draw attention to the breadth of cultural exchange in the following selected examples that relate to my respective fields: the precursor for the European violin is disputably believed to have originated in the Middle East

(Pesch 2009: 118); the close links between Arabic and Hindustani classical musics, brought about by encounters between people including the Mughal Empire and movement of peoples along the silk road (see Clark, M. 2005 on the musical instruments of the silk road); a view that Indian classical music 'resulted from a fusion of many musical strands [… from] channels between classical and non-classical musics' (Widdess 1993: 35); Western classical composers taking inspiration from – and arguably exoticising – art forms that they were exposed to such as the Turkish influence in Mozart's Violin Concerto No. 5, K.219, in A major, Debussy and Poulenc's influence from Javanese gamelan (Farrell 1997: 79) and traces of the Indian epics and philosophies in the music of Holst and Messiaen (see Ringo 1958, Bellman 1998, Clayton and Zon 2007 for discussions of exoticism and orientalism in Western classical music); and popular musics, such as the Beatles (Farrell 1997: 180-8) and Bollywood orchestras (just to mention a few) seeking encounters between Indian and Western classical instruments. All these cases, and many more, lay the groundwork for questioning whether cultural exchange is in fact ubiquitous to all musics – and perhaps humanity more broadly. In light of this point, Ingold challenges whether culture can have a single identity:

> The idea that humanity as a whole can be parcelled up into a multitude of discrete cultural capsules […] has been laid to rest at the same time as we have come to recognize the fact of the interconnectedness of the world's peoples […] It might be more realistic, then, to say that people *live culturally* rather than they *live in cultures.* (1994: 330; original emphasis)

The notion that people live culturally is also supported by Ingold's investigation into the meaning of culture in the contemporary world: 'the concept of culture will surely have further work to do, and its meaning will no doubt continue to change in consequence' (1994: 348).

The issues raised by Ingold and others above are taken up and developed further in these concluding remarks for section 2.3. Drawing attention to the word culture, Middleton suggests that it 'is one of the most complex in the English language […] but this has proved little handicap to its spread; it's *everywhere* (2012: 1; original emphasis) – and at the same time can be something of a 'field of turbulence' for scholarship to address (Middleton 2012: 11). Taking a view that cultural identity can be 'multidimensional, complex and dependent on the social context in which we find ourselves [… rather than] a musician's capabilities and musicality [being] reduced to one abstract musical system, or set of rules' (Hämeenniemi 2017: 185) echoes my own argument for a reconsideration of the East-West cultural divide that dominates musicology.[31] Reagan claims that an understanding of tradition and practices fitting within the categories of Western and non-Western cultures is an oversimplification (2018: 9). As noted by Leslie Swartz:

> The categories 'western' and 'Non-western' are our [western] creations, and reflect neither the diversity of beliefs (often mutually contradictory) that people hold, nor the commonalities that exist across apparently very different groups of people. (1998: 92)

In an article exploring the issues and practice of musicology in reference to Indian musics, Qureshi highlights the challenges for deconstructing the rather arbitrary 'historicalgeographic' categories that underpin musical culture: 'to explore issues surrounding this topic requires delving beneath the brittle surface of discipline and academic argument, and beyond the sonic universe of music, own and other […which calls for] a broadly generic, personal exploration' (1999:

[31] Cook exemplifies the context of the perceived East-West divide by quoting an interview where Maurico Kagel asks: 'What is north, what is south? What is south for you, what is north for me, west for an Asian?' (Cook 2012: 201).

312). Furthermore, an interview with the Sri Lankan born cellist Rohan de Saram, explained how he experiences more of a North-South geographical divide; his wide reaching musical expertise posits a 'marked difference' between the cultures of South Asia, across the Middle East and Mediterranean in contrast with those of Scandinavia and Northern Europe.[32]

With this in mind, I turn full circle back to Born's notion of a 'new, integrated music studies' (2010: 206). In parallel with an integrated music studies, Cook proposes a relational musicology that does not differentiate between Western and non-Western (or world) musics, but where 'a relational model of the discipline can encompass both what we are accustomed to call musicology and ethnomusicology' (2012: 197; see also Cook (2013b) for a notion of Western music as world music, and Bergeron and Bohlman (1992) for a critical approach to Western musicology). Note that I continue to utilise the term Western classical in reference to Western classical violin playing, but without intending to reinforce the East-West divide I have sought to dismantle here. Qureshi discusses the considerations for using the term Western, while aiming to avoid the dichotomy of 'West versus 'The Rest'' (1999: 311). While a concept of European classical music arguably offers a more relational perspective that parallels the notion of an Indian (Hindustani and Karnatic) classical music, the violin playing that I am discussing is currently widely known as Western classical – in both Europe and India. The model of relational musicology argues that cultural identity is constructed relationally, through improvising (as I will discuss in Chapter 6), thus creating 'an intercultural musicology based on

[32] Interview with Rohan de Saram, 29 February 2016.

situated encounters' (Cook 2012: 197). Qureshi highlights the ethical concerns of segregating the studies of Western and non-Western, but also the strength that ethnomusicology can bring to a relational musicology:

> In one sense the very development of a separate specialization for 'ethnically' marked music, and its place at the margins of the unmarked category of Western music, perpetuates the colonial relationship. But in another sense, because of its relative isolation from traditional musicology, ethnomusicology has also been free to extend beyond music and address itself directly to issues of cultural otherness by drawing from other disciplines, mainly anthropology. (1999: 314)

Given the breadth of music that this topic can include, Cook's relational musicology does not solve the more problematic nature of cultural exchange, but instead focuses on the sociological and psychological interactions between musicians and exchanges of cultural knowledge as a way of beginning to understand the complex nature of engaging with such musics on a theoretical and practical level.

2.4. Menuhin-Shankar collaboration

The most immediate precursor to my own case studies that explore the encounter of Indian and Western classical violin playing is the collaboration between violinist Yehudi Menuhin (1916-1999) and *sitar* player Ravi Shankar (1920-2012). Following Menuhin's concert tour of India (playing Western classical music) in 1952, he studied with Shankar over the course of several trips to India, as shown in a photo from a lesson (Figure 2.1), and they began performing together in 1966.



Figure 2.1. Yehudi Menuhin and Ravi Shankar rehearsing at Yehudi Menuhin's house in Highgate for the Gandhi Centenary Concert at the Royal Albert Hall in 1969.[33]

Their albums entitled *West Meets East*[34] serve as a record of the collaboration, along with personal letters, photographs and transcriptions held in the Menuhin Archive at the Royal Academy of Music, London, and autobiographies from both Menuhin (1976) and Shankar (Shankar and Harrison 1999; Shankar and Menuhin 1968). This encounter brings about questions of cultural exchange – what model of collaboration was this given Shankar's authoritative position as Menuhin's guru, the composer and a co-performer? And what has been the legacy of this collaboration, which has become an iconic, but debatable, example of collaborative cultural exchange? Of particular interest is the hand written transcription and notes that Menuhin made of one composition, *Rāga Piloo,* which also features on the *Menuhin Meets Shankar* album and raises two fields of inquiry in relation to my research: i) the nature of the roles and collaborative

[33] Image reference number: FM/5/3/137 (reproduced from the Menuhin Archive, Royal Academy of Music, London).
[34] 'West meets East' features seven pieces, including traditional Hindustani *rāgas* and Shankar's own compositions, initially released as three separate albums between 1966 and 1976. The album featuring *Rāga Piloo* is 'Menuhin Meets Shankar' (1968).

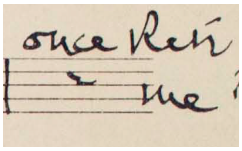
relationship between Menuhin and Shankar; ii) stylistic and technical characteristics in Menuhin's violin playing.

Writing on his early experiences learning and playing with Shankar, Menuhin explains how:

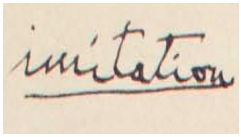
> it took me a long time before I could accept Ravi's invitation to play with him, because I felt that I was in no way worthy. At last there was the great moment in Bath [1966], when I had finally said I would play with him. I was terrified, but we worked night and day, and Diana [Menuhin] brought food from an Indian restaurant for us while we worked. Whenever we stopped we ate or slept, but otherwise we continued for about a day and a half – and always with the incense burning. Finally I was able to play a few pieces with Ravi, and then we performed. I assure you I was never more nervous than that! It came off so well that we had to repeat it, the very same day – and then I was initiated. (Menuhin; cited in Shankar and Harrison 1999: 183-4).

Menuhin was stepping beyond the Western classical tradition and these comments clarify both the challenges and ways in which he was engaging with elements of Indian culture – for example, the food, sitting on floor and the incense. There is no mention of any cultural exchange or teaching in the opposite direction, from Menuhin to Shankar. Menuhin's transcription of *Rāga Piloo*[35] demonstrates how his role as a student continued in performances with Shankar, as illustrated in the following instructions from the score:

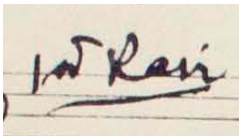
[35] See Appendix II for the opening extract from Menuhin's transcription of *Rāga Piloo.*



'once Ravi, once me'



'imitation'



'1st Ravi'

Figure 2.2. Extracts from Menuhin's performance notes for *Rāga Piloo*.[36]

Fitting the characteristic of a typical teacher-student performance (in both Hindustani and Karnatic classical music), Shankar always began imitative phrases with Menuhin following. The directions from the score above reveal how Menuhin and Shankar upheld the roles of a guru and student in performance as well as exposing the imitative nature of Shankar's teaching and performances with Menuhin.

As well as being the guru, Shankar was the composer of the pieces that they performed together, including *Rāga Piloo*, as revealed in his autobiography:

> These collaborations with Yehudi were my first top-notch ones with a foreign artist. After this it seemed better for me to record only with classical musicians, and it convinced me that I should always be the composer. Moreover, whatever music we chose to play, whether based on ragas or folk tunes, it had to be Indian. (Shankar and Harrison 1999: 184)

On the one hand, this comment is rather dogmatic, but on the other hand, Shankar explains how remaining within the parameters of the Indian classical system was partly due to the constraints of the *sitar* as an instrument not being

[36] Image catalogue number: XX(128172.1) (reproduced from the Menuhin Archive, Royal Academy of Music, London).

as flexible as the violin for use outside Indian music: 'There are many technical difficulties involved [in playing Western classical music…], which [are] foreign to Indian classical music' (Shankar and Harrison 1999: 184). However, the exact nature of the collaboration warrants further research given Shankar's potentially inflexible approach that contradicts his claim that this was a 'sharing of each other's work' (Shankar 1995). In contrast with the flattering and animated letters that were exchanged between Menuhin and Shankar, a letter from Menuhin to Shankar on 11 September 1997 highlights a possible tension in the collaborative partnership: Menuhin refers to 'our own (your own) little pieces that we played together'.[37] Were there ambiguities and issues as to the ownership of this material?

While Shankar's compositions are representative of the traditional Hindustani classical style, Menuhin's violin playing in these pieces remains much closer to a Western classical tone quality and way of playing the violin. I have identified seven key components to Menuhin's playing that suggest either a conscious decision to remain in his style of expertise as a Western classical violinist, or a lack of understanding of the Hindustani aesthetic, as outlined below.

1) Playing position: although Menuhin sat cross-legged to match his co-performer, he held the violin in the Western classical position (on the left shoulder);
2) The tuning is the standard Western classical tuning of G–D–A–E, so was not adjusted to fit the *rāga*;

[37] Private letter correspondence from YM to RS, 11 September 1997, held in the Menuhin Archive, Royal Academy of Music, London.

3) Vibrato is used as a continuous feature, as is common in Western classical violin playing;
4) High positions / upper registers: given that the violin in India was, until recently, predominantly used for imitating and accompanying vocalists, Indian violinists generally do not use the upper registers above third position.
5) Bowing techniques: Menuhin's use of Western classical bowing styles such as 'off-the-string' bow strokes – *sautillé* and *spiccato* – for fast consecutive notes are rarely heard in India where violin techniques have developed through imitating the voice (and are predominantly *legato* and played 'on-the-string').
6) Stretching the *rāga* grammar in the *ālap* (which is composed and notated): on the ascent of *Rāga Piloo* the *Dha* (sixth degree of the *rāga*) – in this case B – should not be played. Menuhin ascends from A_5 to B_5 several times in one passage of the *rāga ālap*. As the main part of the composition does not break the boundaries of the *rāga*, it is possible that Menuhin composed this part of the *ālap* himself – and it is surprising that Shankar did not correct the mistake, which subsequently also features in a transcription of *Rāga Piloo* made for Anoushka Shankar and Joshua Bell to perform from;[38]

[38] David Murphy made this transcription from Menuhin and Shankar's 'West meets East' album recording. In addition, Murphy checked the transcription with Ravi Shankar (email correspondence from DM to AB, 2 March 2016). A performance (2007) using Murphy's transcription of Ravi Shankar's *Rāga Piloo* by Anoushka Shankar (*sitar*), Joshua Bell (violin) and Tanmoy Bose (tabla) can be viewed at the following YouTube link: <https://www.youtube.com/watch?v=CGJSfnNIMfk> [accessed 10 March 2016].

7) *Gamakas*[39]*:* in a conversation with Karnatic violinist Jyotsna Srikanth, she expressed surprise that Shankar did not teach Menuhin one of the basic *gamakas* for *Rāga Piloo*, which is a slow glide, or *glissando*, up to *Sa* (tonic) – something, which Menuhin could have easily incorporated.[40] Menuhin's embellishments are mainly Western sounding ornaments, such as mordents and grace notes – suggesting that either Shankar did not teach the *gamakas* to Menuhin, or that Menuhin and Shankar were actively trying to preserve their separate musical traditions.

While Menuhin was playing Hindustani compositions, it was perhaps intentional that he engaged with a Western classical sound in the realisation, or interpretation, of the composition through the use of the Western playing position, tuning, vibrato, high hand and registral positions, bowing techniques, stretching the boundaries of the *rāga* grammar and the ornamentations. Further insight is revealed by the meetings in the mid-1960s between Menuhin and the eminent Karnatic violinist Lalgudi Jayaraman (1930-2013).[41] Menuhin commented that he could not imitate the 'lucidity and accuracy in loose fingering' with which Lalgudi executed Karnatic *rāgas* (Devnath 2013: 197).[42] In light of Menuhin's awareness of Karnatic violin playing techniques from exposure to the playing of Lalgudi and others, Menuhin's playing clearly did not

[39] See glossary for a definition of *gamaka* and further details in Chapter 3.
[40] Violin lesson with Jyotsna Srikanth, 25 February 2016.
[41] Menuhin invited Lalgudi to play at the Edinburgh Festival in 1965 followed by a performance at Buckingham Palace for the Queen and then at Menuhin's house, playing on one of Menuhin's violins. Following this encounter, Menuhin had a violin made in Italy, which he gave to Lalgudi (Devnath 2013: 196).
[42] While all the Karnatic violinists, who I have spoken to, tell me that Menuhin actually played with Lalgudi, I am yet to find any more evidence of this.

stylistically engage with violinists from either North or South India. At some level, Menuhin and Shankar opened up the possibilities for the violin and *sitar* as instruments of cultural exchange – though arguably, the violin had already made this bridge in both the Hindustani and Karnatic traditions as a 'a practical communicator between east and west' (Swift 1990: 81). *Rāga Piloo* and the other pieces that Menuhin and Shankar recorded are Hindustani in structure, but Menuhin preserves the integrity of a Western classical musician – the success, or failure, of which reveals some of the challenges of collaborative cultural exchange.

In summary, the recordings, transcriptions, letters, photographs and autobiographies documenting the Menuhin-Shankar collaboration provide insight into the working relationship between two musicians from the Western and Indian classical traditions respectively. As one of the iconic examples of collaborative cultural exchange, the creative dynamics and level of engagement with new ideas reveal some of the ways in which knowledge is mediated between musicians from different cultural and musical traditions. In particular, this example demonstrates some of the ways in which knowledge is disseminated from teacher to student, where Shankar – the guru and composer – led the creative decisions. The example of *Rāga Piloo* demonstrates how Menuhin and Shankar's shared knowledge can be located in Shankar's composition, while both musicians' delivery of the piece remained within the parameters of their individual styles and expertise of the two musical traditions. The relationship between personal and shared knowledge in the Menuhin-

Shankar collaboration provides a starting point from which I examine my own collaborations.

2.5. Conclusions

Taking this literature and musical practice as a whole, my thesis tackles the ways in which the violin, in relation to ways of knowing, negotiates a crucial role in collaborative cultural exchange. The predominant ways of examining musical and embodied knowledge within my key themes (craft in creative collaboration and cultural exchange) demonstrate how music can afford an extension of the self, with broad social, collaborative and psychological implications in India and London. While cultural exchange involving Karnatic and Western classical violin playing can be examined from distinct and contradictory perspectives, it is the physical experience that has been left unaddressed in the current literature. Varela et al. highlight some of the wider ramifications for philosophy, psychology and consciousness studies through their endorsement of a dialogue between mind and body: 'knowledge depends on being in a world that is inseparable from our bodies, our language, and our social history – in short, from our embodiment' (1991: 222). Existing research has illustrated significant insights into creative collaboration, but leaves a broadly individualistic approach that needs to be further developed to examine the ways in which knowledge is disseminated and embodied experiences emerge in group creative practice (see Chapter 7).

A number of authors have presented ethnographic perspectives on the arguably subjective nature of embodiment. While I have argued in favour of practitioner-led research, the strength of such accounts can be found when situated within

the theoretical frameworks provided by authors such as Georgina Born, Nicholas Cook, Tia DeNora, Tim Ingold and Richard Sennett. Several of these accounts challenge the traditional composer-performer model in Western classical music, but they still broadly operate within the conventional roles of composer and performer. My research aims to extend discussions on creative processes in composer-performer collaborations, but also seeks to dismantle and challenge the roles of composer and performer through engaging with notions of shared knowledge in collaborative practice. This will involve the study of a co-authored work and the collaborative paradigms that fall between composer-led and co-authored models; these are significant for both Indian classical and contemporary musics, but are not discussed in relation to the body in the extant literature.

This chapter has drawn attention to the rich bodies of scholarship surrounding the violin, Indian classical music, collaborative practice and cultural exchange, framed by the question: how do we understand the ways in which musicians exchange knowledge in these otherwise broad and sometimes problematic discourses? While theoretical perspectives on knowledge offer insights that will be informative at one level, it is the close examination of music in collaborative cultural exchange that offers another level of real life insight into the integral nature of ways of knowing in musical interactions. My case studies aim to employ the methodologies of a relational musicology and practitioner-led accounts, set out above, to expose examples of embodied experiences and cultural knowledge (Chapter 4), the transmission of ways of knowing from teacher to student (Chapter 5), personal knowledge in creative collaboration

(Chapter 6) and shared knowledge in group creative practice (Chapter 7). The work of Ingold provides a particularly salient perspective that I return to throughout the thesis as a framework for understanding how objects (the violin) and culture cannot be bound up in a fixed form: 'people do not acquire their knowledge ready-made, but rather *grow into it,* through a process of what might best be called 'guided rediscovery' (2011: 162; original emphasis). It is Ingold's understanding of knowledge as ecologically produced that contests the fixed understanding of knowledge as culturally produced (Payne 2015: 206). With Ingold's strong case for a forward-looking approach to reading knowledge in mind, my case studies illustrate the more entangled and often implicit nature of musical knowledge. Through the experiences of my own collaborative practice and autoethnographic research I will begin to unravel some of the intricate layers that make up the ways I know – and will learn to know – the violin.

Chapter 3

The violin in South India:

historical and practical perspectives

This chapter provides a historical and practical context for the rest of the thesis, focusing on the violin that is found in South India today and its relation to the people who play it. I am primarily concerned with the ways in which the instrument is played: Karnatic violin techniques and the process of learning this way of playing (which I will explore further in the following two chapters). The ways in which the fingers relate to each other and the left hand moves around the instrument offer valuable possibilities for learning outside the scope of my training in the Western classical tradition. The flexibility of the instrument has ultimately secured its position in the Karnatic classical tradition through moving away from the music played on the early violins that were brought to India by missionaries and colonialists in the eighteenth century. Instead, the ornaments and embellishments that are characteristic of Karnatic music, known as *gamakas*,[43] have led to a flexible and fluid approach to the left hand. In particular, it is the multiple ways of moving between *svaras*[44] that interests me from a pedagogical perspective and as a practitioner. I ask: how can the movements required for Karnatic *gamakas* be treated as part of a broader 'contemporary toolbox' for the violin? And how might these ways of playing the violin shape and change creative collaborative projects in London?

[43] I will explore the full definition of the term *gamaka* in further detail in section 3.3.
[44] *Svaras* are the pitches that make up the *rāga,* see the glossary for a full definition.

String instruments have a long history in South Asia, as depicted in carvings, paintings and literature, which I will discuss with reference to the ancient string instrument known as the *rāvanahasta* (Bor 2010). String instruments that are indigenous to the classical music systems of India include the *sitar* in the north and the *saraswati veena* in the south, which is believed to be approximately four hundred years old and holds a sacred association with the Hindu goddess of learning and wisdom, Saraswati. These plucked string instruments are both used in classical music today, while the bowed *sarangi* has fallen from use in South India. In its place, the European violin has become one of the most prominent instruments in Karnatic classical music. As part of a musical tradition centred on the human voice, the violin has been adapted in setup and playing technique to meet the demands of Karnatic music. The Karnatic violin is primarily used to accompany vocalists, imitating vocal techniques that have transformed the craft of the violin, particularly in relation to the left hand.

Given that there is currently very limited literature dedicated exclusively to the Karnatic violin, this chapter aims to provide a historical and practical overview for a selection of basic Karnatic violin techniques. Aside from the alterations to the material setup and the position in which it is played, there are many cultural ramifications that have resulted in the violin becoming increasingly embedded in Karnatic classical music – particularly throughout the twentieth century. Fundamentally, the history of both bowed and plucked string instruments in India is closely wedded to the sustained and lyrical aesthetic of Indian classical music, which has paved a path for the violin to thrive in India. In the vocal dominated Karnatic tradition, the role of the violin accompanying vocalists was,

and still is, a platform for the instrument to emerge and consequently introduce a new craft of the instrument. Weidman's claim that the violin has 'gone native' (2006: 57) underpins the extent of the technical transformations that have been generated by violinists in South India. After a century of established Karnatic violin playing, it is significant that contemporary Karnatic violinists are now making connections with European traditions within the framework of an established Karnatic system.

This chapter follows the course of three broad and overlapping topics in relation to the Karnatic violin: the violin (3.1), violinists (3.2) and Karnatic violin techniques (3.3). While these sections are intrinsically linked and cannot be treated in isolation from each other, I intend to bring a focus to three significant components of violin playing – broadly categorised as objects, practitioners and craft – before examining how they relate to each other in the concluding paragraphs. Section 3.1 is largely concerned with the history of the instrument in India, providing a contextual background for the ways in which the violin has developed in South India as well as its relationship to Western classical violin playing. Section 3.2 focuses on performers, teachers and students by setting out a broad overview of the principal schools of Karnatic violin playing. 3.3 turns to the craft of the instrument with a practical approach as a violinist. An analysis of some basic Karnatic violin techniques explores the ways in which left hand movements have developed through imitating Karnatic vocal music. Given the limited sources documenting both the historical and practical use of the violin in India (as set out in Chapter 2), my research is largely based on personal

experiences from violin lessons as well as a broader perspective gathered from interviews in India and observations from live concerts.

3.1. The Violin

> A musical instrument in common use, having four strings tuned in fifths and played with a bow; a fiddle. In general structure the violin is composed of a resonant box of elaborately curved outline, and a neck or handle from the end of which the strings are stretched over a bridge to a tail-piece. (Dictionary, Oxford English *"violin, n."*)
>
> [The violin:] an international instrument, which is undoubtedly the king of all instruments. (Mysore Manjunath)[45]

The violin used in South India today is the European violin that was introduced in the eighteenth century by British and French colonialists. There are varying accounts of the arrival of the violin in India, which are closely linked to the social and political climate of eighteenth century India (see Weidman 2006: 29-31 for three accounts of the entry of the violin into India; Goertzen 2016: 248 for a brief history of music in colonial India; and Irving 2009 on global networks and movements of musical instruments). I begin with a historical context for the violin in India, providing an overview for the ways in which it has become an established instrument in Karnatic classical music as well as the physical and technical transformations of the instrument. While the opening dictionary definition states the raw materials that make up the instrument, this chapter will reveal a more relational view of the violin that considers the social and cultural constructions of the instrument.

[45] Violin lesson with Mysore Manjunath, 15 January 2017.

Accounts from the late eighteenth century reveal that early violinists in India predominantly heard and played Scottish and Irish jigs and reels, French dancing songs, English marching bands and classical music by composers including Handel and Corelli[46] in localised court communities (Weidman 2006: 26, 29). Although it is not known when and where the first bowed string instruments were played in South Asia, one ancient bowed instrument is still played by folk and street musicians in Rajasthan and Gujarat (North India) as well as in Sri Lanka, which some musicians believe is around 5000 years old: the *rāvanahasta*[47] (or *rāvanastron*) (Krishnan 1999: 47).[48] The *rāvanahasta* is arguably one of South Asia's oldest bowed instruments and takes its name from the ancient legend of the *Rāmāyana.*[49] The origins of both the *rāvanahasta* and the *Rāmāyana* myth are ambiguous; however, amongst Indian scholars, this instrument is a strong contender for the origins of the violin bow (Bor 2010: 432) – and Bor argues that the musical bow could have migrated from South to Central Asia, rather than the commonly assumed other way around (Bor 2010: 452).[50] One nineteenth century source claims that 'it is not improbable that the fiddle-bow originated in India, and came thence to [Europe] through Persia and Arabia' (Engel 1883: 12). From there, 'like the flute, it soon afterwards sped westward again, through Byzantine commercial routes and North African

[46] See Head (1985) for details on Western classical music in colonial India during the seventeenth and eighteenth centuries.
[47] The *rāvanahasta* is made from a gourd or coconut shell that acts as a resonator for a bowed gut string.
[48] There is also a bowed string instrument known as the *esraj* (formally the *dilruba*) that is played in a few states in North India, including West Bengal (Shankar and Harrison 1999: 319).
[49] Bor outlines the historical making of the *rāvanahasta* as told in the popular *Rāmāyana* myth about *Rama* and *Sita* (2010: 437).
[50] Several European scholars, including Bachmann and Boyden, provide a contradictory proposition by arguing that the birthplace of the musical bow lies in Central, rather than South, Asia (1980: 125-35; cited in Bor 2010: 432).

invasions, to adorn, as the legacy of India, the highest attainments of our European music' (Galpin 1948: 334).

While it is beyond the scope of this research to trace the ancestors of the violin, the potential association between the Karnatic violin and the *rāvanahasta* is worth briefly considering. Opening up the possibility that bowed string instruments might have originated in South Asia, the violin can be seen as a vehicle for cultural exchange that deviates from a Euro-centric perspective. Bor's (2010) chapter on the origins of the bow amalgamates material from ancient oral accounts and sculptural representations with more recent theoretical sources to offer a broad context for the cultural ancestors of the modern violin, which lie in contrast to the exclusively European origins for the Karnatic violin that are found in the accounts by Amanda Weidman (2006) and others. Instead, the colonial perspective of the violin does not challenge the origin of the musical bow (whether Central or South Asia): these accounts do not discuss the violin prior to its use in Europe and fail to recognise the broader significance of the instrument beyond the Western classical tradition. By drawing on the historical accounts from Bor (2010) and others, this understanding of the musical bow shifts the relationship between Karnatic and Western violin playing, an outlook that has arguably placed too much emphasis on the European instrument without acknowledging its wider historical and cultural origins.

Further insight can be gleaned from examining the orientation of right and left hands – for the bow and fingerboard respectively – found in ancient sculptural

representations of string players. This notion of handedness, which dominates string playing today, appears uncontested across the various bowed (as well as plucked) string instruments in India. One example is shown in Figure 3.1 from a twelfth century carving in *Bēlūr* (South India):



Figure 3.1. Hoysala frieze at *Channakeshava* Temple, *Bēlūr*: temple dancer playing a *veena* dating from the twelfth century.

This image of a *veena* player that is commonly depicted in Indian temples, along with the occasional images of bowed string instruments,[51] illustrates the universal orientation of handedness in relation to string playing where the instrument is almost always held on the left (which is explored further in the next chapter).[52]

[51] Sculptural representations of bowed string instruments from the twelfth century can be found in temples across South India and give evidence for these instruments existing prior to the violin: in Chidambaram (Tamil Nadu), Tirumukudal (near Mysore) and Vijayawada (Andhra Pradesh) (Krishnan 1999: 2). Earlier examples of a bowing-stick exist from the seventh to eighth centuries in Virupaksha temple, Pattadakal (near Badami), and in Ajanta Cave number four dating from the fourth to sixth centuries (Bor 2010: 436).

[52] With the exception of a number examples of left handed guitarists, for example Jimi Hendrix, who reversed the setup of the instrument to play on the right.

The violin that arrived from Europe in the seventeenth or eighteenth century has undergone many physical and technical transformations to suit Karnatic classical music. The precise details of the arrival of the violin and the ways in which it was first played vary across different lineages of violinists; one strong contender is the violinist Baluswamy Dikshitar (1786–1858) (Weidman 2006: 29), who was supposedly taught by a European violinist visiting Chennai (Lalitha 2004: 104).[53] The tuning, playing position and fingering technique have all been modified to suit Indian music and the last hundred years have demonstrated how violin techniques in South India have developed through the violinist's role accompanying and collaborating with other instrumentalists. Given the cross-legged sitting position of all classical performers in India, the violin has adapted to the cross-legged position by resting the scroll on the right foot, as shown in the photo below and **Video example 3.1**.



Figure 3.2. The Mysore Brothers: Mysore Nagaraj (left) and Mysore Manjunath (right) performing in Srirangapatna on 17 January 2017.

[53] Baluswamy Dikshitar was the brother of Muthuswamy Dikshitar (1776 – 1835) who is consistently hailed as one of the *Trīmūrti* (Trinity) of Karnatic composers along with Syama Sastri (1762–1827) and Saint Tyagaraja (1767–1847) (Viswanathan and Allen 2004: 19). The majority of Karnatic concerts today feature music by these three eighteenth century composers.

As John Baily discusses in relation to Afghan music, chairs are a relatively 'modern innovation' (1977: 288), which have gradually been adopted for use in the more affluent homes in South Asia, while classical musicians embrace the traditional cross-legged position. Manjunath explains that: 'this [cross-legged] position we have to do in Indian culture […] Because of this, we can engage with the left hand [movements]'.[54] The left hand movements in question combine 'the virtuosic fingering of European playing technique with a quick sliding motion of one finger along the unfretted neck, permitting subtle intonation and the complex swoops, curves, and oscillations of ornamentation (*gamaka*)' (Reck 2000: 352), some of which I will outline in section 3.3.

As shown in Figure 3.2, the Mysore Brothers demonstrate two different ways of holding the violin: Nagaraj (left) adopts the more widely used position with the right foot extended out in front of the body while Manjunath (right) rests his right ankle on the left knee in order to raise the violin so it can rest under his chin.[55] It is not evident when the transition to the Indian posture took place; there could also be potential influences from the playing position of folk fiddlers, to whom the early violinists in India would have been exposed. A summer palace, built by Tipu Sultan in 1784 in Srirangapatna (near Mysore), has fresco-covered walls that include an image of an early court violinist.

[54] Violin lesson with Manjunath, 15 January 2017. Note that all communication during my lessons was in fluent English; Mysore Manjunath often teaches and performs with musicians who do not speak the state language, Kannada, so speaks in English. Sanskrit words were used when there was no direct English equivalent, such as *gamaka* and *rāga.*

[55] While there are many ways of holding the violin in the Indian posture, I have not come across any violinists other than Manjunath who hold the violin in this way. It is significant that these brothers, who grew up with the same *guru,* approach the instrument in such different ways.



Figure 3.3. Detail from *Dariya Daulat Bagh*, Srirangapatna, India (unknown artist: 1784).

This painting suggests a position of holding the violin that is more typical of European folk or Baroque musicians at a time when the violin was in a transitional phase in relation to Karnatic music in the late eighteenth century.

Violinists in India today use the modern European classical violin and *Tourte* bow, with the exception of a few violinists who have experimented with adding extra strings, such as the prominent Karnatic violinist Mysore T. Chowdiah (1895-1967), who played a seven-string violin (Pesch 2009: 122).[56] The tuning is usually a lower register than the G–D–A–E setup that has become standardised in Western classical violin playing. Instead, the strings follow the format of *Sa–Pa–Sa–Pa* (tonic – dominant – tonic – dominant) with the violin used as a flexible instrument where the strings are regularly re-tuned to match the register of different *rāgas* and vocalists. Tuning the open strings to the tonal centre affords violinists with a drone created by an occasional double stop with an open string (Reck 2000: 352) and also has considerable implications for the relation between the left hand and the instrument, as I explore in Chapter 4. Most solo violinists use D sharp as the tonic: the Mysore Brothers, as well as several other violinists, state a preference for the string tension and registral possibilities of

[56] The legacy of Chowdiah and his seven-string violin can be seen in the Chowdiah Memorial Hall in Bangalore, which is constructed in the shape of a seven-string violin.

this tuning: D#$_3$–A#$_3$–D#$_4$–A#$_4$. Some violinists also omit the E string and add a viola C string to their violin, using a C–G–D–A setup with various tunings.[57]

The instruments that are played in India today are predominantly made in Europe and China rather than India. Many have false labels that make claims to being made by the eminent and highly valued Italian luthiers (mainly from Cremona) in the seventeenth and eighteenth centuries (a practice of forgery that exists across the globe). Reck observes how 'by pressing the bow on the playing strings, [Karnatic violinists] achieve a piercing, nasal timbre strikingly different from the common European violin sound' (2000: 352; see also Goertzen 2016: 250). Having discussed tone quality with the Mysore Brothers, I argue against Reck's over simplified statement above, which warrants further scrutiny; although lessons with Karnatic violinists rarely focus on tone quality, some violinists are seeking to match something closer to a European violin sound (see Weidman 2006: 37). The Cremonese design for violins and a setup adapted for Karnatic music has become a standard model for the Karnatic violin in South India today. Karnatic violinists today always perform with amplification (of varying quality depending on the venue), so the notion of an ideal tonal aesthetic is geared towards amplified playing.[58] Consequently, sound projection is not

[57] I have never seen or heard a viola being played in India, although it would seem appropriate given the tuning used by many violinists. The Mysore Brothers use Pirastro Chromcor strings that are composed of a steel core wound with chrome steel, made in Germany, and considered to be the most appropriate for aiding the smooth glides required by the music. The aluminium wound synthetic strings I was using, made by Dominant were considered by my teachers to be too thick and with an occasional inconsistent texture to facilitate optimum glides, particularly on the G string (although the higher tension that I was playing at as a result of a higher bridge than the Karnatic violins would have also played a part in this).

[58] Performances in India today are all amplified with stand-held microphones rather than specialised plug-ins or pickups for instruments, such as DPA microphones that are currently in wide use by instrumentalists in Europe. The Mysore Brothers have started to use some pickups

fundamental in the same way as in acoustic violin playing; instead, the Mysore Brothers play with slackened bows that optimise smooth, lyrical playing at the expense of a stronger acoustic tone.

During the twentieth century the violin established its role as the major accompanying instrument to Karnatic vocalists, imitating and supporting the voice as a 'shadowing' instrument (Goertzen 2016: 252). Weidman argues that a number of practical and social motivations led to the violin becoming the principal accompanying instrument in Karnatic music, replacing the *sarangi* and harmonium. As the only foreign instrument used in the current core group of Karnatic instruments, the adaptable qualities of the violin include being easily portable, a non-fretted fingerboard suitable for *gamakas*, wide and flexible register, *legato* playing with the bow, loud volume for pre-amplified performing (in comparison to the *sarangi*) and qualities that allow it to mimic the human voice. By contrast, the *veena*, harmonium and *sarangi* have all fallen out of popular use in Karnatic music: the *veena* is difficult to transport and too quiet when music made the shift from palaces to public concert halls in the early twentieth century; the harmonium is limited to the chromatic scale and has religious associations with the Christian missionaries who introduced it[59] (whereas the violin was considered to be a secular instrument) (Viswanathan and Allen 2004: 29); and the *sarangi* has difficulty projecting, as well as social

in recent performances (2017-18), which suggests that this may be part of a wider move towards more specialist amplification in the future.

[59] Despite its prevalence as an accompanying instrument in Hindustani music today, the harmonium was banned by All India Radio in the 1930s due to its unsuitability for Indian classical music (Weidman 2006: 47).

implications associating it with the lower castes (Qureshi 2000: 830; Weidman 2006: 46).[60] Weidman claims that the appeal of the violin lies in its association

> with Western classical music and with the emerging urban middle class that, in postcolonial India, were expected to be the custodians of a newly modernising musical tradition […] Unlike other instruments in the 1930s, the violin crossed caste lines.[61] (Weidman 2006: 49)

In addition, Subrahmanya acknowledged in 1941 that the violin had significantly contributed in facilitating South Indian musicians and audiences to perceive tones smaller than the standard Karnatic (and Hindustani) division of twenty-two microtones within one octave (: 60). In the latter half of the twentieth century a few violinists began moving away from solely accompanying vocalists and began performing as soloists: for example Lalgudi Jayaraman, M. S. Gopalakrishnan and Vidwan Sri. Mahadevappa (the Mysore Brothers' father and guru).

As the Karnatic violin became a more prominent instrument, techniques were adapted to imitate vocalists. Critics in the early twentieth century wrote that

> Karnatic violinists seemed to have forgotten that the West had developed a system of violin technique; violinists in India, ignoring this, seemed to be starting over again, literally from scratch […] the reformation of violin technique was seen as the key to reforming and modernising Karnatic music in general. (Weidman 2006: 37)

Perhaps the history of bowed string instruments outlined above can provide insight into the relatively distant relationship between Karnatic and Western classical violin playing that Weidman alludes to. The development of Karnatic violin techniques has in turn challenged vocal techniques, which have developed

[60] It is worth noting that these instruments are still used to varying degrees in different regions, but the violin has taken over as the principal accompanying instrument for the voice in South India.

[61] See Weidman 2006 for a detailed discussion on the development of Karnatic music in relation to colonial rule and independence in India.

to match the virtuosity of violinists: 'this virtuosic sound of a colonial instrument "gone native" is in turn imitated by vocalists' (Weidman 2006: 57). Weidman states that 'in its short career in South India the violin has gone from being a colonial instrument to being, almost literally, the voice of Karnatic music' (Weidman 2006: 52). There have been stylistic changes in violin playing, from more fingered runs and trills in early recordings, towards a much more florid style by the end of the twentieth century, following trends in vocal styles (Weidman 2006: 51). Observing Karnatic violin solo and duet performances over the last ten years in India and London, it appears that the violin is becoming a more prominent solo instrument, bringing a more varied palette of virtuosic techniques with it. Gordon Swift recognised this in 1990: 'L. Shankar and his brother L. Subramaniam are dedicated to developing the violin as a virtuosic solo vehicle through various technical innovations' (: 57). Hearing L. Subramaniam and his son, Ambi, perform in Chennai and London (in 2011, 2012 and 2016) proves how they are among a few violinists who are experimenting with more virtuosic violin techniques in South India by incorporating and exchanging techniques from the Western classical violin tradition including double stops and *ricochet* bowing.

This account of the Karnatic violin has outlined the material form and setup that the instrument takes in India, as well the social context that elevated its transition from a colonial to a prominent Karnatic instrument. Returning to the dissolved boundaries between subject and object set out in Chapter 2, the social and historical context for the Karnatic violin invites a new understanding. Dawe claims that

> when musical instruments sound out they are invariably made to make meaning […] which, in turn, makes them potent social and cultural phenomena. […M]usical instruments are embodiments of culturally based belief and value systems, an artistic and scientific legacy, a part of the political economy attuned by, or the outcome of, a range of associated ideas, concepts and practical skills: they are one way in which cultural and social identity […] is constructed and maintained. (2012: 195)

My research highlights how the violin can take many different configurations and characteristics depending on the cultural and musical environment. The cultural context of the instrument will inform the discussions of my experiences learning with Karnatic violinists in Chapters 4 and 5.

While there are numerous sources that detail the history and practical components of violin playing outside India, this account of the violin in India has sought to emphasise the entangled nature of the instrument within colonial, independent and contemporary India. There are many forces at play that contribute to the role of the violin 'simultaneously as the modernizer of Karnatic music and as the preserver of Karnatic music's authenticity' (Weidman 2006: 14): namely, the relationship with indigenous bowed and plucked string instruments; the physical practicalities of the violin; a move away from associations with the caste system that restricted the use of the *sarangi*; and the time of its transition coinciding with a revival and more demarcated classical music system.[62] The violin 'became Indian' (Weidman 2006: 47) and violinists rejected many links with Western classical violin playing – instead responding to the craft of Karnatic vocalists and indigenous string instruments such as the *rāvanahasta* and *veena*, for example in the use of left hand *pizzicato* to imitate

[62] Weidman discusses how the identity of Karnatic music was reinforced at a time that coincided with the Indian independence movement of nineteenth and early twentieth century India (2006: 4-5).

the *veena.*[63] Manjunath's claim of the violin holding the position of an international instrument, surpassing political, social, geographical and many more boundaries, highlights the complexities as well as the fluidities and liberties surrounding the instrument.

3.2. Karnatic violinists: performers, teachers and students

I now turn to the practitioners – students, performers and teachers – who have been the driving force behind the enculturation and transition of the Karnatic violin as an integral and fundamental instrument that is arguably now recognised independently from India's colonial past and the European violin. The people who have composed the music often simultaneously hold the roles of students, performers and teachers and have been responsible for the developments in the ways that it is played. In the second half of the twentieth century a few distinguished violinists began to move away from exclusively accompanying vocalists and began to promote the violin as a solo instrument. Without the reliance on vocal techniques, violin playing has transitioned in two key interconnected directions: first, schools of violin playing developed that were stylistically distinguished from each other depending on cultural influences and the region; second, the craft of the instrument began to expand beyond the scope of the human voice. The lifelong commitment to a guru (which I discuss in Chapter 5) continues throughout a professional career and contributes to clearly defined schools of violin playing, *gamakas* and consequently violin techniques that have evolved in relatively distinct styles.

[63] Interview with Ambi Subramaniam, 3 January 2016.

Before outlining the schools and techniques of playing, I detail the background of the Mysore Brothers' relatively unconventional route into playing the violin as an example of the malleable and interdependent relationship between people and the violin. Manjunath explained how his family do not come from the Brahmin upper caste, which dominates classical concerts and music education in India. By contrast, their father, Vidwan Sri Mahadevappa (1930-2018), came from a rural agricultural family with no musicians, until he started learning to sing and was given a violin to play that was found in his teacher's house. Around the age of 20, he performed at a concert, replacing a violinist at the last minute who was ill; his playing impressed the vocalist he was accompanying so much that he was invited to study in Mysore, which eventually led to his own performing career.[64] Nagaraj and Manjunath had a very strict musical training with Mahadevappa, which has led to a successful, international performing career. Manjunath explained how the violin has given their family many things: the 'violin is our identity […] I'm so happy to be blessed to handle an international instrument'.[65] Manjunath's comments situate the violin as the raison d'être for his relatively high social status, cultural value, profession and personal life, which is particularly difficult to achieve in a society where music and musicians' lives are, to a large extent, closely bound up with language, lineage and caste.[66] In challenging the societal conventions, the violin can be seen as an agent for bringing about social change in the case of the Mysore

[64] Violin lesson with Manjunath, 15 January 2017.
[65] Violin lesson with Manjunath, 15 January 2017.
[66] Transcending social status to the degree that the Mysore Brothers' family is not usually possible for percussionists and other instrumentalists, such as *sarangi* players, whose profession is more closely wedded to the caste system in Hindu society. As mentioned earlier, the roots of the violin outside India offer opportunities for musicians that are unique to the instrument. See Weidman (2006) for a detailed social understanding of classical music in India.

Brothers – and with it forging new relationships with the instrument, partly made possible by its international circumstance. I now turn to the ways in which families and lineages of Karnatic violinists have created different styles within the Karnatic classical tradition, through their distinctive schools of violin playing.

Schools and styles of violin playing

In comparison with the Western classical violin, the Karnatic violin has become an established instrument comparatively recently. The last one hundred years have seen dramatic developments in Karnatic violin playing, where the result of the oral teaching tradition is that 'each school of violin playing developed almost independently of one another' (Subramaniam 2014: 67). Manjunath explained that violin techniques tend to be inconsistent across different violinists and primarily concerned with sound quality: it does not matter how a *gamaka* is achieved, 'it's about the sound'.[67] Different methods for executing *gamakas* have consequently evolved and formed styles of violin playing, known as *bānīs*. In North India, the term *gharānā* refers to musicians who share the same musical lineage and style of playing, with several prominent *gharānā* named after their geographical origin, such as Agra and Gwalior (Slawek 2000: 465). For Karnatic music, Lalitha explains how:

> In South Indian classical music there is no clear distinction in the context of the usage of the terms schools and styles of violin playing. […] Unlike in the West, there is no such regionwise classification such as a Madras school of playing or a Kerala school of violin playing. There are various ways in which a violinist may be referred to, for which there are no rules. (2004: 106-7)

[67] Interview with Mysore Manjunath, 21 December 2015.

However, some Karnatic violinists use the word *bānī* to refer to their lineage and instrumental style. The term *bānī* is widely used throughout the Hindustani and Karnatic classical traditions to refer to a specific style or mode of playing (Pesch 2009: 398), where each *bānī* is named after a musician who introduced new ways of playing or singing. In their discussions of the four main *bānīs* in the Hindustani *dhrupad* tradition, Sanyal and Widdess suggest that some artists incorporate all four *bānīs* into a single performance, whereas others attribute 'particular *bānīs* to specific lineages', thus employing a single style (2004: 68). On the one hand, some Karnatic musicians, such as Lalitha, do not appear to associate with the concept of *bānī* (it is not mentioned in her book), although a musicians' identity is partly based on the name and success of their guru (as I will discuss in Chapter 5; see Neuman 1980: 31). On the other hand, the concept of *bānī* is prevalent amongst violinists including the Mysore Brothers (who have created their own *bānī*) and many others, and arguably refers to the style of playing, which sometimes (but not always) includes the school, or lineage, of playing. Although highly subjective, violinists in Chennai today broadly recognise three influential *bānīs* that developed in the twentieth century: 'Lalgudi', 'Parur' (or 'MSG'[68]) and 'T. N. Krishnan'.

During the 2015/16 December Music Season[69] in Chennai I conducted interviews with eminent professional violinists who were performing and

[68] Different people attribute this *bānī* to either Parur Sundarm Iyer or his son M. S. Gopalakrishnan (colloquially known as 'MSG').
[69] The December Music Season is the biggest Karnatic music festival in India, which lasts for six weeks every year, with over 1500 performances in different venues around Chennai. The Madras Music Academy is a purpose built auditorium from 1928 that is considered to be the most prestigious venue for Music Season performances.

represent a cross-section of the Karnatic *bānīs*.[70] The insights from these semi-structured interviews, summarised in Table 3.1, provide a crucial contextualisation for schools of violin playing that only became apparent after speaking to a number of different musicians. Each violinist explained the origins and developments of their violin tradition, illustrating how Karnatic violin techniques have many more influences than simply imitating the voice, which is the view commonly portrayed in the literature.

Bānī (not all violinists belong to a bānī)	**Violinist** (and relationship to the *bānī* and/or guru)	**Guru**	**Profession**	**Interview** (date and location)
'Lalgudi' style	G. J. R. Krishnan (son of Lalgudi Jayaraman)	Lalgudi Jayaraman (1930-2013)	Duo artist with sister	6/01/16: Chennai
'Parur' or 'MSG' style	Dr M. Narmadha (granddaughter of Parur Sundaram Iyer / niece of MSG)	Parur Sundaram Iyer (1891-1964)	Accompanist and solo artist	7/01/16: Chennai
	M. A. Sundareswaram (grandson of Parur Sundaram Iyer / son of MSG)	Parur Sundaram Iyer / M. S. Gopalakrishnan (1931-2013)	Accompanist and solo artist	7/01/16: Chennai
T. N. Krishnan	T. N. Krishnan (b. 1928)	Semmangudi Srinivasa Iyer (1908-2003)	Solo and duo / trio artist with his daughter and/or son	Unavailable for interview due to ill health
(Not specified)	Ambi Subramaniam (son of L. Subramaniam)	Dr L. Subramaniam (b. 1947)	Solo and duo artist with his father	3/01/16: Skype
(Not specified)	Embar Kannan	A. Kanyakumari (birth date not	Accompanist and duo with *guru*	17/01/16: Chennai

[70] See Pesch (2009: 118-124) for a list of prominent Karnatic violinists and their disciples, Violinist Ambi Subramaniam also provides a detailed account of the leading violinists in India from the nineteenth and twentieth centuries, drawing on first hand insights from his father, Dr L. Subramaniam (2014: 845-66); see also Lalitha (2004: 204-24) for a list tracing her lineage of Karnatic violinists.

		known)	Kanya-kumari	
(Not specified)	Akkarai Subbulakshmi (daughter of Akkarai Swaminathan)	Akkarai Swaminathan (birth date not known)	Accompanist and duo artist as the Akkarai sisters	6/01/16: Chennai
Mysore Brothers	Mysore Manjunath	Vidwan Sri. Mahadevappa (1930-2018) (father of the Mysore Brothers)	Duo artist as the Mysore Brothers	21/12/15: Mysore
Mysore Brothers	Mysore Nagaraj	Vidwan Sri. Mahadevappa	Duo artist as the Mysore Brothers	15/01/16: Mysore
(Not specified)	Jyotsna Srikanth (daughter of Ratna Srikantiah)	Ratna Srikantaiah (birth date not known)	Solo artist and accompanist	2/12/15: London

Table 3.1. Karnatic violinists interviewed in Chennai, Mysore and London.

To summarise some basic characteristics, Lalgudi has been acknowledged for introducing double stopping to Karnatic playing, particularly a *glissando* up to a unison tonic pitch using a double stop with an open string, which is now widely used by violinists at the end of phrases.[71] The 'Parur' *bānī* promotes single string playing with melodies played with one finger on one string.[72] Both *bānīs* evolved from vocal styles and have numerous influences; these include characteristics from Hindustani music in the 'Parur' style; and techniques from other string instruments, for example, violinist L. Subramaniam who uses left hand *pizzicato* to create the effect of a *tala* string that provides the drone on the *veena*.[73]

[71] Interview with G. J. R. Krishnan, 6 January 2016.
[72] Interview with M. A. Sundareswaram, 7 January 2016.
[73] Interview with Ambi Subramaniam, 3 January 2016.

Many violinists combine elements from all three *bānīs* as well as many more origins: for example, L. Subramaniam challenges the 'Parur' single string technique and instead argues that *glissandi* should be rendered with more than one finger[74] – a technique that I will return to in section 3.3. These interviews reveal the more porous role of violinists operating within both Hindustani and Karnatic traditions, which is not discussed in any literature. For example, M. A. Sundareswaram, one of Parur Sundarm Iyer's grandsons, explained how his grandfather first studied Hindustani music in Bombay (now Mumbai), before applying techniques from Hindustani instruments (including the *veena*) to the violin that became fundamental to the 'Parur' style of Karnatic playing.[75]

From talking to different violinists it has become apparent that some strongly advocate the preservation of their *bānī*, most notably the descendants of the three violinists who constitute the three main named *bānīs*. Other violinists are less bound to a particular style and take influences from multiple *bānīs* as well as musical traditions from outside India; for example, Manjunath stated 'ultimately I play [the] violin and I play music'.[76] Nagaraj explained how his influences are wide reaching and partly based on the Hindustani music that was played on All India Radio when he was a child, along with Western classical recordings of Yehudi Menuhin.[77] The Mysore Brothers have intentionally imitated Western classical violinists' tone quality and bow hold, in addition to Manjunath having a preference for playing more in a 'Lalgudi' style and Nagaraj adopting more of a 'MSG' style. Through increasing access to travel and online resources, many

[74] Interview with Ambi Subramaniam, 3 January 2016.
[75] Interview with M. A. Sundareswaram, 7 January 2016.
[76] Interview with Mysore Manjunath, 21 December 2015.
[77] Interview with Mysore Nagaraj, 15 January 2016.

Karnatic violinists today incorporate techniques from outside India, thus expanding the concept of exclusivity to one guru and their style of playing (which I will return to in Chapter 5). The significant changes to the musical profession in India in the 1970s provide further insight, where the princely patronage that had once provided salaries for musicians no longer existed following independence (Silver and Burghardt 1976: 28). Consequently, the difficulties making a living as a musician have led to a significant decrease in the number of musicians dedicating their life exclusively to music and with it an arguably more diluted approach to traditional teaching and the school or style of playing (Silver and Burghardt 1976: 28).

The wide-ranging techniques that make up Karnatic violin playing underpin an understanding of the violin as an instrument that is constructed by exchanges between people and traditions. Returning to the question of lineage and *bānī,* which is often imperative for a Karnatic violinist's career, I conclude this section by looking at the close relationship with the craft of the violin. Western classical violinist Peter Sheppard Skærved explains the significance of his craft being constructed by the lineage of violinists and composers he can trace from his teacher Louis Krasner back to Corelli (Clarke et al. 2016: 141). His suggestion that '[Craft is] the passing on of both an oral and a tactile tradition […] You *pass* something on' (Clarke et al. 2016: 141; original emphasis) resonates closely with the ways in which Karnatic violin playing is learned (as I will discuss further in the following chapters). This closely interlinked relationship between the lineage of teachers and the physical way of playing the instrument offers opportunities for reconsidering the understanding of a musician's craft set out in

Chapter 2. Manjunath makes a clear differentiation between violin technique – as the physical way the instrument is played – and style, or *bānī* – which is based on the playing of other musicians as well as many more factors, such as the way you feel.[78] Drawing together these principles for violin playing, the case of the Karnatic violin provides a particularly pronounced model for understanding how craft, technique, lineage and styles of violin playing represent a complex system for exchanging and passing on knowledge.

3.3. Karnatic violin techniques: an overview

Following my previous experiences of violin lessons in India and London, I approached Dr Mysore Manjunath (hereafter referred to as Manjunath, as I address him in person) with the specific request to focus on learning how to play *gamakas* as a way of experiencing a sense of movement, touch and orientation in relation to the instrument that is specific to Karnatic playing. As a violinist who plays fusion music and experiments incorporating violin techniques from different musical traditions, Manjunath was open to teaching in an unconventional way – which is rare in India. These lessons included playing *gamakas* in three different contexts: i) as part of technical exercises used to develop specific techniques in different *rāgas;* ii) *gamakas* within un-metred improvised *rāga ālāpana*; and iii) composed melodies *(varnams)* that require the execution of *gamakas* at a faster tempo and within metrical cycles.

As with all musical genres and as demonstrated by different violinists I have heard performing, techniques are specific to individuals and I have focused on

[78] Interview with Mysore Manjunath, 21 December 2015.

those that I learnt from the Mysore Brothers. In addition, most Karnatic violinists do not identify or analyse specific techniques due to the oral teaching tradition; thus, I have presented my own interpretation of what I learnt with supporting technical references from Lalitha's (2004) treatise. As observed by musicologists and practitioners, including Swift (1990), Lalitha (2004: 185), Weidman (2006) and Pearson (2016), the techniques and ways of playing *gamakas* have evolved due to the demand placed on violinists to replicate vocal ornaments. Through this process of imitation, Karnatic violinists have developed left hand techniques and movements that are arguably independent from those found in Western classical violin playing. The following section investigates the meaning of the term *gamaka,* for which there is no corresponding English translation, but is a fundamental concept underpinning the development of Karnatic violin techniques.

Gamakas

> Music without gamaka is like
> a moonless night,
> a river without water,
> a creeper without flowers […]
>
> (Bharata's ancient Indian treatise, *Natya Sastra*[79])

Although the term *gamaka* is often translated as 'ornament' or 'embellishment', these definitions are misleading and *gamakas* cannot be considered solely as decorative. Instead, *gamakas* perform a more integral function in Karnatic music and provide the defining characteristics of the *rāga*, as well as the *bhāva* (mood or feeling) (Pearson 2016: 48). It would appear as though the origins of the Sanskrit word *gamaka* are unknown, although *gamaka* is also an ancient form of

[79] Cited in Chelladurai (1991: 20).

storytelling in India, which possibly links with the way in which *gamakas* in music can determine the meaning, emotion and points of emphasis within a *rāga*. One definition states:

> *gamaka,* literally, graces or gracefulness […] The ornament in Karṇāṭak music is not considered an add-on to the basic note; *gamaka* is an integral structural part of *svara.* There are many different types of ornamentation in Karṇāṭak music, grouped into three general categories: *kampita* shakes or oscillations, *jāru* slides, and *jaṇta* stresses. (Viswanathan and Allen 2004: 47)

From a practical perspective, the term *gamaka* is used in India to describe the way in which musicians move between one *svara* and another.

Subbaram Dikshitar was the first person to start labelling *gamakas* in 1904.[80] Subsequently, rules have been formed giving instructions on how to generate specific *gamakas*, but these are merely for classification purposes.[81] In a 'Sangita Ratnakaram' from the thirteenth century Sarangadeva talks about fifteen types of *gamaka*, but today musicologists acknowledge ten (Chelladurai 1991: 207). Many musicians do not recognise or endorse these definitions that have been proposed by musicologists in India, arguing that there are many variants created as every musician plays and uses *gamakas* in different ways. Manjunath explicitly conveys that most of the *gamakas* he uses have no name and have emerged in multiple and overlapping forms through the oral method of teaching.[82] Whilst a detailed examination of *gamakas* warrants further research, this project is concerned with the ways in which the violin has accommodated this quality of Karnatic music. While I acknowledge the limitations of using my own experiences that solely encompass basic Karnatic *gamakas,* my initial

[80] Karnatic music theory lesson with Srilatha Renjith, Chennai, 28 December 2011.
[81] Karnatic music theory lesson with Srilatha Renjith, Chennai, 28 December 2011.
[82] Violin lesson with Mysore Manjunath, 30 December 2016.

experiences act as the context for the techniques that are incorporated into the case studies that follow. In addition, I present these observations from the perspective of my background in Western classical violin playing. For the purpose of this categorisation I have organised the techniques I am including into two broad groups: general left hand techniques, followed by specific techniques required for *gamakas.* These observations are predominantly based on my lessons with Embar Kannan (Chennai, 2011-12) and the Mysore Brothers (Mysore, 2016-17).[83] Given the highly developed and documented field of Western classical bowing techniques, for example *detaché, martelé, spiccato, sautillé* and *ricochet,*[84] my studies focus exclusively on the left hand in Karnatic violin playing. In addition, bowing patterns in Karnatic music tend to follow the lyrics of the vocalist, which results in almost exclusively *legato* bowing for Karnatic violin playing.

Hand and finger positions

Tuning the strings to *Sa* and *Pa* (tonic and dominant) allows the *rāga* to always fall under the hand shape in first position with *Sa* as an open string. Karnatic violinists rely on *Sa* always being an open string, with everything operating from that position and consequently remaining predominantly in first and third positions. It is worth noting that the South Indian style does not use the term 'finger positions', with the exception of C. S. Ayyar who refers to first and third 'grip positions' – which correspond to first and third position in Western

[83] See Chapter 5 for details of my Karnatic violin lessons.
[84] See Galamian (1964: 44-92), Menuhin et al. (1976: 57-79) and Fischer (1997: 59-88) for technical guides to the fundamental bow strokes for Western classical violin playing.

classical violin technique (Lalitha 2004: 81).[85] Embar Kannan explained that second and fourth positions are rarely used; fifth is used occasionally, but Indian violinists do not often play that high.[86] Lalitha also comments that second position is only used to slide through in between other positions (Lalitha 2004: 83). The Mysore Brothers have a more varied approach to hand positions, particularly Nagaraj who often utilises a single finger (first or second), moving through positions one to eight, to execute a single phrase. **Video example 3.2** demonstrates a single string exercise for developing this technique (predominantly first and second finger) – played here in *Rāga Dharmavathi*. Figure 3.4 shows a basic transcription for the single string exercise in *Sargam* notation with finger numbers added above: the main finger numbers shown in black and the basic outline of the *gamakas* in red.[87] (Note that the ascending exercise is played twice, followed by two renditions of the descending version in **Video example 3.2.**)

[85] I will use the Western classical notion of positions for describing corresponding hand positions in the Karnatic system that does not have an alternative terminology.
[86] Violin lesson with Embar Kannan, 25 December 2011.
[87] I use the Western classical numbering system for violin playing here to illustrate the point, but later question the effectiveness of the numbering system in Chapter 4.

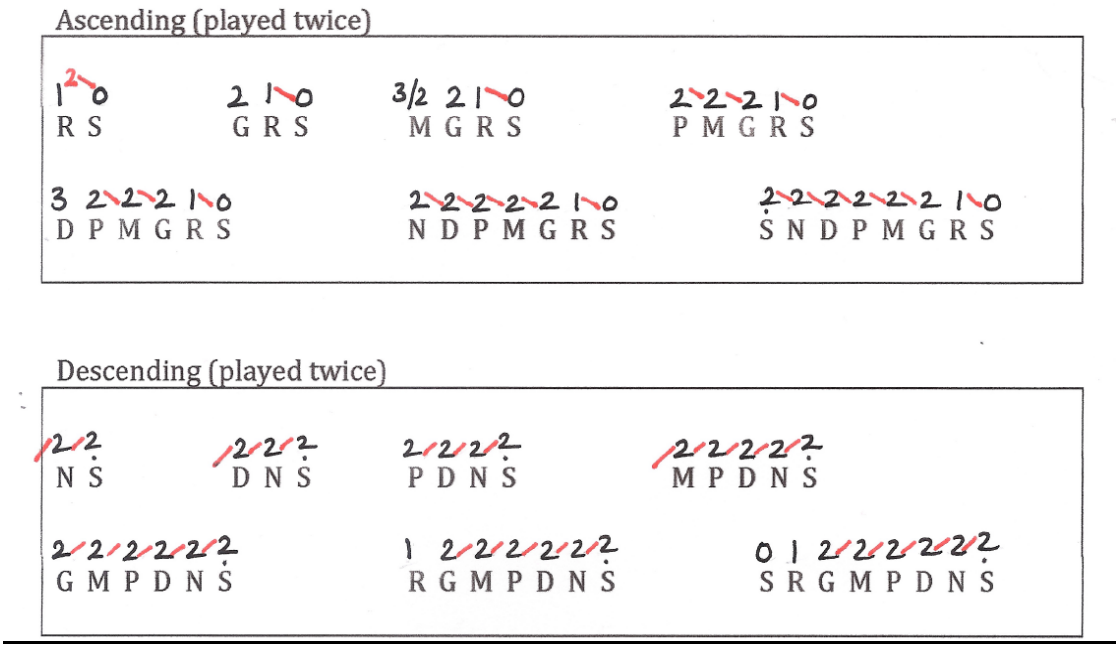


Figure 3.4. Transcription of the single string exercise.[88]

Figure 3.4 illustrates how the single string exercise aims to facilitate the prominent use of the middle (second) finger. Nagaraj maintains the clarity of pitch for each *svara* when playing a phrase with one finger (such as P D N S with the middle finger), while also demonstrating how the use of a single finger can create *gamakas* between each *svara* – a vital characteristic of Karnatic music. By 'mastering' the single string exercise in different *rāgas*, Nagaraj claims that students will be able to effortlessly play the phrases required for each *rāga*.[89]

The fourth finger

The fourth finger is used to varying degrees and for different purposes in Karnatic violin playing. Lalitha comments that

[88] Note that this transcription makes no attempt to precisely transcribe the *gamakas* other than to show where they occur with a short hand notation (in red) depicting the basic ascending/descending movement required.
[89] Violin lesson with Nagaraj, 1 January 2017.

> there are many styles of violin playing and each style has its own fingerings. In my tradition of violin playing all the four fingers are used. Whereas in many other schools of violin playing not all the four fingers are used. (2004: 85)

Gordon Swift argues in favour of the use of the fourth finger, providing a critical response to techniques such as that shown in **Video example 3.2**:

> This technique [using the fourth finger] preserves the identity of the various *svaras* in the *rāga.* If only one or two fingers are used then in the course of a slide from one *svara* to another all the intervening *sruti-s* will be blurred together – thus destroying by 'dissonance' the true colours of the *rāga.* (1990: 59)

I would argue that while Swift's claim may apply to certain violinists, the example in **Video example 3.2** demonstrates how Nagaraj can play melodic phrases with one or two fingers in a way that does not inflict inappropriate dissonance on the *rāga*. Other violinists, including Biswajit Roy Chowdhury in Kolkata, rarely use the fourth finger, whereas Embar Kannan uses it to avoid the timbre of open strings where appropriate, as Western classical violinists often do. Lalitha makes reference to exercises developed by Shri V Lakshminarayana, similar to those found in Western classical violin playing, for strengthening the fourth finger (2004: 85).[90] The Mysore Brothers use the fourth finger for a number of different functions, including those mentioned above, and also ornaments and left hand *pizzicato.*

Vibrato

Vibrato is not traditionally used in Karnatic music and is associated more with Western classical violin playing, as illustrated by Jyotsna Srikanth who uses

[90] Lalitha's study of four violinists gives further examples of different uses of the fourth finger (2004: 161).

vibrato for fusion music and more sparingly in Karnatic classical performances.[91] Karnatic violinists all adopt different approaches to the use of vibrato. Embar Kannan explained that vibrato is used to dramatise something, mainly in minor scales and asked me not to use it.[92] Indian musicologists have identified vibrato as a type of *gamaka*, while Lalitha does not mention vibrato in relation to Karnatic music. As with the majority of Karnatic violin techniques, this is a reflection on vocalists who do not generally use vibrato, except in ornamentation. Vibrato is used as a decoration, rather than the almost constant element it has become in Western classical violin technique; it is closer to the pre-twentieth century Western classical approach, as described by Joachim in his *'Violinschule'* from 1902-1905:

> [T]he pupil cannot be sufficiently warned against its habitual use, especially in the wrong place. A violinist whose taste is refined and healthy will always recognize the steady tone as the ruling one, and will use the vibrato only where the expression seems to demand it. (Cited in Brown 1988: 114)

Robin Stowell also highlights how the more sparing and selective pre-twentieth century use of vibrato in Western classical music served to 'emphasise certain notes' (1992: 130). Similarly in Karnatic vocal and violin technique

> vibrato is on the palette of ornaments used in Karṇāṭak music, it is one among many possibilities, not a basic part of vocal production as in *bel canto* European vocal training. (Viswanathan and Allen 2004: 47)

Embar Kannan's use of vibrato tended to be on the minor third degree of the *rāga*, or the seventh. Observing different violinists proves that this depends on the individual: for example, A. Kanyakumari uses vibrato more than Embar Kannan, which is interesting given that she is his guru.[93] The Mysore Brothers

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[91] See also Reck (2000: 352).
[92] Violin lesson with Embar Kannan, 9 December 2011.
[93] Concert at the Madras Music Academy, 'December Music Season', 19 December 2011.

also show a more liberal use of vibrato, but generally treat vibrato as a *gamaka;* observing the rules of *rāga,* where *gamakas* are not applied to *Sa* and *Pa,* therefore keeping the tonic and dominant as, what Manjunath calls 'plain' notes without any oscillations. The intention behind playing the tonic and dominant without vibrato or *gamakas* is to avoid the microtonal pitch inflections of the vibrato creating dissonance with the drone. By contrast, Nagaraj encouraged me to use vibrato on the second degree (*Ri*) of *Rāga Abhogi*, to create a sense of anticipation by moving the pitch towards the tonic.[94] There is also a slow vibrato (known as *andolan* in Hindustani music), which I have identified more closely to a 'finger roll' *gamaka* and will discuss later.

Specific techniques for gamakas

The grouping of the *gamakas* I have identified below is based on the type of movement involved rather than any pre-conceived classification: first, pitch inflections, which are similar to grace notes, and second, *glissandi*.

Pitch inflections

Finger roll

What I have called the 'finger roll' comprises a simple movement of the left hand fingers to create a deviation in pitch to the microtone, quartertone or semitone below the stopped note. I have called it a finger roll because the technique is created by rotating the hand backwards from the wrist, literally rolling the finger from the fingertip to the finger pad. **Video example 3.3** shows my demonstration of a slow followed by a fast finger roll; I do not have any footage

[94] Violin lesson with Mysore Nagaraj, 9 January 2017.

of the finger roll, as my observations were during concerts where filming was not permitted. Lalitha has classified this technique as the 'rocking technique', explaining that 'the thumb remains in the same position and only the left-hand palm and wrist move' (2004: 160). The movement resembles that of a slow wrist vibrato. Although the finger roll technique uses a similar process to that of a Western classical wrist vibrato, the effect is different as this *gamaka* acts as a grace note, similar to an *acciaccatura* or lower mordent.

Partial release / feather touch

Creating a similar effect to the finger roll is a *gamaka* named by Lalitha as a 'partial release' (2004: 90-1), but referred to in my lessons with Nagaraj as a 'feather touch'.[95] The pressure of one finger of a multiple finger stop is released very quickly, so that the pitch of the finger below is audible. As with the finger roll, this technique is used to create a deviation in pitch to the microtone, quartertone or semitone below the stopped note. Some violinists combine the partial release of the stopped note with a fast rotation from the wrist backwards, as employed by some violinists for the finger roll. **Video example 3.4** shows my demonstration followed by the Mysore Brothers in practice and a concert. Embar Kannan explained that the pitch you hear is a grace note, as it is not always part of the *rāga*, therefore it should not fully sound, or be obvious, but acts as a *gamaka*.[96] Lalitha has compared the method for rendering this *gamaka* with the technique required to play harmonics (2004: 177). However, I would argue this is a tenuous link as the finger leaves the string, unlike with harmonics

[95] Violin lesson with Mysore Nagaraj, 7 January 2017.
[96] Violin lesson with Embar Kannan, 17 December 2011.

where it does not, and the effect of the partial release is entirely different, like that of a grace note.

Glides and shifting

Glides

Glissandi, known as glides or *jaru* in India, are a crucial component for creating the essence of many *rāgas*. Glides are identical to those in Western classical playing, but I would argue, with greater attention to detail to the speed at which they are executed. Lalitha's descriptions of glides do not mention the specific speed of the slides to create different *gamakas*. It is interesting experimenting with Simon Fischer's (1997) method for practising 'slow arrival shifts' (see Figure 3.5), which could be applied to developing techniques for varied *glissandi* in Indian music.

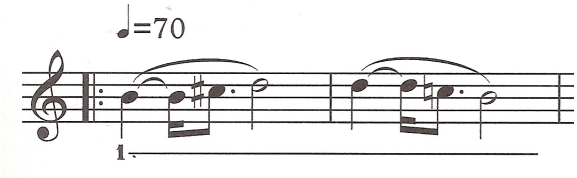


Figure 3.5. An exercise for shifting from B to D with a slow arrival speed (image reproduced from example 209 in Fischer 1997: 149).

Fischer explains that

> the slow arrival speed is written into each [ascending] shift as an extra note a semitone below the arrival note. (And a semitone above the arrival note for descending shifts.) The dotted rhythm forces the speed of the shift to be fast-slow. (1997: 148)

In Karnatic violin playing, I have observed that when the ascending-descending slide is used, often over the interval of a third, the ascending movement is faster

than the descending movement, although this is purely an observation, which Embar Kannan did not admit to when asked directly.

Glides within one hand position

In general, Western classical violinists are taught to think about the geography of the instrument in terms of position-based hand shapes – some beginners have stickers on their fingerboard outlining the hand shape of first position, as referred to as the 'natural' position of the perfect fourth by violinist Joseph Szigeti (1969: 70). As mentioned above, with *Sa* as an open string, the majority of Karnatic violin playing is orientated around the 'natural' hand shape that gives one octave over two strings. However, one major difference is the sliding between two notes that are in the same position (for example, *Ga* to *Ri*) rather than creating a glide through shifting: a technique that I have not found described anywhere, but which appears to be employed by all the Karnatic violinists with whom I have studied.[97] These minute details and movements are a result of the *gamakas.*

Block fingering for glides

To create the glides within one hand position, Karnatic violinists often group their left hand fingers together in a block. This technique can be used to produce glides within one position rather than treating each finger as an individual component. In a technical treatise on Western classical violin playing, Simon Fischer identifies a similar action for creating a different effect:

[97] Cellists and double bassists, particularly those with small hands, would perhaps relate to this method more easily than violinists due to not having such fixed hand positions.

> To play faster, raise or drop groups of fingers together, in a fan-like shape. The fingers all move at the same time in one single action, but they touch or leave the string one after another. In most cases you need a combination of individual finger actions and blocks; in the very fastest playing you can use blocks almost exclusively. (Fischer 2004: 11)

Fischer's concept of blocks for fast passages introduces the notion of the using the left hand as a single action, as in the Karnatic block fingering. He explains how

> This is like playing a double or triple stop on one string [… But b]ecause the lower finger starts off nearer the string than the upper finger, it contacts the string an instant before the upper finger and the two notes sound very fast. (Fischer 2004: 11)

While Fischer's technical direction is a useful starting point, there is no mention of the left wrist and whether the wrist is used to aid the angle of the fingers, or the action is solely from the fingers.

The Karnatic technique for block fingering similarly requires playing a double or triple stop on one string, but the concept of the block involves fusing the fingers together as one unit, as shown in Figure 3.6.



Figure 3.6. Block fingering: an example of the position of the fingers required for playing certain Karnatic *gamakas* (left) and a Western classical hand shape for first position (right).

Video example 3.5 illustrates glides within one position and block fingering, as the two techniques are interlinked: first, my demonstration followed by its use in the context of the Mysore Brothers in practice and a concert (note that I have

annotated a selection of the multiple examples in these clips). Here, I have fused my first and second fingers together to create a 'block', therefore producing glides between the *svaras* E_4 and $F\#_4$. Although difficult to see in my demonstration, the second finger is lifted slightly from the string when the E is played. In addition, rotating the hand from the wrist can help to create the movement from the second to the first finger (in this example) – as used in the finger roll technique above, but rarely employed for Western classical violin playing with the exception of a wrist vibrato.

3.4. Re-imagining the violin

This chapter has established a historical and practical context for Karnatic violin playing, which forefronts a view of the instrument as a vehicle for cultural exchange. The ways in which '[t]he violin has traveled and flourished all over the world' (Goertzen 2016: 241), invites an understanding of the violin that considers its complex and ambiguous origins in relation to present day cultural exchange. In light of Cook's notion of a 'relational musicology' (2012; see Chapter 2) as an alternative approach to the Euro-centric perspective that dominates violin playing, I propose a more global approach for deconstructing and re-imagining the violin – a concept that will be taken up and developed further through examples of working with resistance in the next chapter.

This chapter has examined three interrelated components of violin playing in South India: the instrument, practitioners and craft. Having transformed extensively from the European violin that was first introduced to India, the Karnatic violin arguably stands for an authentic voice of Karnatic music in

modern India (Weidman 2006: 25). Karnatic violinists in the last twenty years have begun to endorse the violin as a solo instrument, embodying a more global perspective on the instrument by incorporating virtuosic techniques into traditionally structured performances. The move away from being the accompanist to the soloist is particularly apparent within the current generation of violinists, including L. Subramaniam and the Mysore Brothers. My practical overview for playing some basic *gamakas* reveals how Karnatic violin techniques have developed through the close relationship of musicians working with the violin in the cultural context of Karnatic music, but also drawing on instruments and music from outside the Karnatic tradition. Figure 3.7 illustrates some of the cultural flows from my findings that are instrumental in the development of Karnatic violin techniques today.

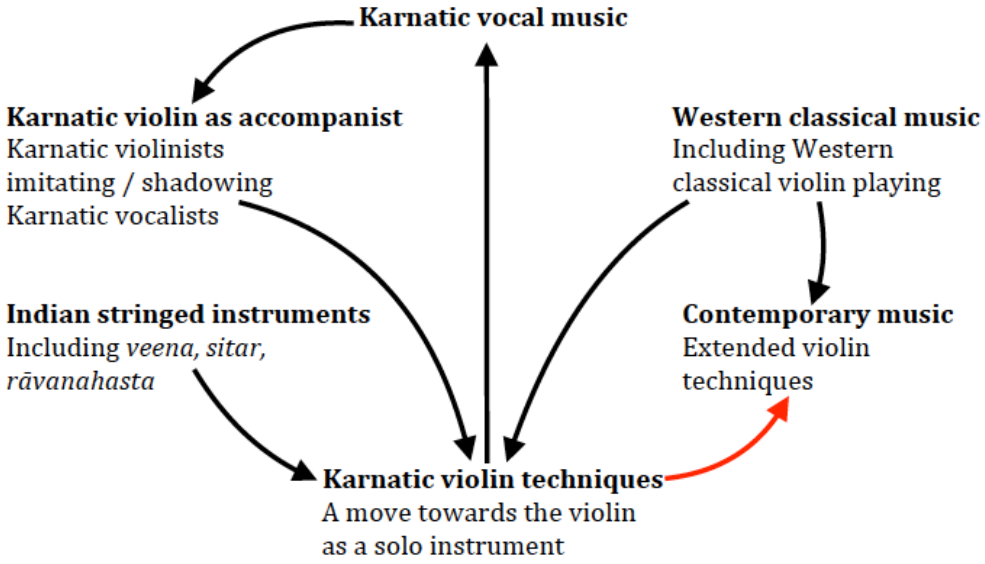


Figure 3.7. Karnatic violin techniques viewed as a process of cultural exchange.

While Figure 3.7 is a simplified diagram of what is a highly complex web of cultural exchange, it serves to demonstrate some of the basic processes and

influences at play. The red arrow connecting Karnatic violin techniques with contemporary practice represents the process at the core of my research and practice as a violinist. Each arrow in the diagram portrays a different level of engagement with its constituent musics, thus representing a broad picture for what is a highly complex process. However, identifying the cultural flows surrounding the violin draws attention to some of the more porous boundaries between relatively established musical traditions. Guitarist and ethnomusicologist Kevin Dawe observes that 'these boundaries are just the places where we need to ask more and more questions about musical instruments in the cultures and societies of the world' (2012: 283). To begin investigating some of the boundaries and connections that construct an understanding of the violin as an instrument of cultural exchange, I return to DeNora (2000: 67) and Ingold's (2013: 69) argument surrounding the dichotomy between subject and object, set out in Chapter 2.

Taking the question of subject and object into music, practice-led ethnomusicologists, including Baily (1977), Qureshi (2000), Dawe (2005; 2012; 2013) and Bates (2012), have called for a new understanding of the relationship between people and musical instruments that recognises the agency of musical instruments.[98] For instance, in a study of the Turkish *saz,* Bates argues that

> Much of the power, mystique, and allure of musical instruments […] is inextricable from the myriad situations where instruments are entangled in webs of complex relationships – between humans and objects, between humans and humans, and between objects and other objects. Even the same instrument, in different sociohistorical contexts, may be implicated in categorically different kinds of relations. I thus am arguing for the

[98] See Bates (2012: 372-3) for an outline of the frequently used theories of agency, including Actor-Network Theory (ANT), which inform wider discussions on models of agency for musical instruments.

> study of the *social life of musical instruments.* (2012: 364; original emphasis)

The case of Karnatic violin playing presents a particularly complex set of relationships between historical instruments, cultures and people, but one that supports the necessity for a framework based on social discourse, as I have demonstrated in this chapter.

Focusing on the relationship between humans and objects, one perspective suggests that the agency of the instrument carries weight over performers, as expressed by Yehudi Menuhin:

> A great violin […] is alive; its very shape embodies its maker's intentions, and its wood stores the history, or the soul, of its successive owners. I never play without feeling that I have released or absorbed or, alas, violated spirits. (Menuhin 1976: 296)

Taking account of the social life of musical instruments warrants the contribution of luthiers, performers, teachers, students, composers, the lineage of the aforementioned people, modern day technologies and many more factors. While I do not seek to cast the net as wide as this approach appears to suggest, my focus narrows to address the violin as an agent for cultural knowledge in the example of Karnatic violin playing and ask: how might an understanding of the violin as an instrument of cultural exchange inform my creative projects of musicians in cultural exchange later in the thesis? It is with this broad understanding in mind that I turn to an embodied notion of Karnatic violin techniques in Chapter 4, which feeds into the collaborative projects in Chapters 5, 6 and 7. Following the practice-led models of Baily, Bates, Dawe, Qureshi and others offers an approach that seeks to tease apart, what Bates has called, 'thinking through instruments' (2012: 368). This perspective affords and

enhances my examination of the dissipation of musical knowledge, which focuses on the felt experiences of working and knowing musical instruments in the next chapter. It leaves open the possibility that musical instruments are more than the sum of their material parts and instead can cause agency:

> musical instruments can transform minds and bodies, affecting states of mind as much as joints, tendons and synapses, ergonomics and social interaction – the joy of playing musical instruments is a joy that comes from exhilaration felt at physical, emotional and social levels. (Dawe 2005: 60)

Returning to my personal experiences of learning, Karnatic violin techniques reveal how new approaches and understandings of the instrument I have played for many years invite a reimagining of the ways I know the violin.

Chapter 4

Experiencing the Karnatic violin

My field of enquiry for this chapter focuses on the intricate relationship between the body and the violin in Karnatic music, where my training in the Western classical tradition throws key differences into relief. In particular, I find the way in which the left hand negotiates the instrument in Karnatic playing both fascinating and challenging. While the instrument is the same as the European violin, the music requires an array of elaborate left hand movements to implement the *gamakas,* which place demands beyond those present in Western classical playing. Learning to play basic *gamakas*, as outlined in Chapter 3, has opened up new possibilities for the left hand, specifically finger and arm movements. This chapter focuses on two significant changes to the way the left hand relates to the instrument: first, playing within set hand positions on the fingerboard, which are mapped out from the initial lessons in European classical violin playing; and second, a non-linear perspective on the left hand that is partly an outcome of the flexible approach to hand positions and can challenge the first-finger-centred way of playing through offering new functions, combinations and hierarchies for the left hand fingers. This chapter addresses the ways in which Karnatic music invites a more fluid approach to hand positions and the ramifications of this in terms of phrasing and expression in music.

This chapter will engage with ways in which Karnatic violin techniques introduce new methods of using the musical body and consequently afford new ways of knowing the instrument, both physically and mentally. Embodied cognition theory questions the polarisation of mind and body, as presented from

a psychological perspective by Francisco Varela et al. (1991), Raymond Gibbs (2006), Andy Clark (2008) and Zdravko Radman (2013). An approach that examines new ways of knowing the violin can reveal insights into the physical experiences of playing a musical instrument with wide ranging ramifications for the interactions between musicians in cultural exchange. The wider context of my research explores three interconnected sites of knowledge:

(1) Experiences engaging with the tacit knowledge of Karnatic violin teachers;

(2) The violin-playing left hand as an organ of knowing;

(3) Taking knowledge that emerges from Karnatic violin lessons through the violin into collaborative practice.

This chapter focuses on the first two domains as a framework for examining my experiences studying the violin in India. I will ask: how can resistance (between the body and instrument) and a cultural construct of the hand cultivate knowledge and access tacit ways of knowing the Karnatic violin? Resistance is specified later on in relation to David Clarke's three sites of resistance (2013: 177).

I begin with an ethnography that addresses material and physical differences that arose in my Karnatic violin lessons with the Mysore Brothers; namely two main sites of resistance with the instrument as a result of adopting the cross-legged position for playing the violin. Given the relatively unfamiliar physical approach to the instrument in this position, I turn to examples from everyday activities in India to outline a cultural framework for viewing the left hand. My observations and experiences of eating with the hand and practising yoga offer

potential pathways for developing a reconstructed relationship between the hand and the violin. An autoethnographic examination questions two methods for creating a new relationship with the violin: first, through unlearning my trained haptic notion of violin-playing hands; and second, through engaging with cultural constructions of the hand in India.

4.1. Working with resistance: an ethnographic approach

Having outlined the material and physical setup for Karnatic violin playing and how this contrasts with my previous ways of playing the Western classical violin in Chapter 3, I now consider the points of resistance with the instrument that arise as a result of this posture and way of playing. The combination of the modifications to the instrument, along with several other material changes to the way in which the violin is played, summarised in the list below, will be discussed in relation to the experience of playing and learning the Karnatic violin.

- Left hand flexibility and lightness on the strings, as a result of not supporting the instrument with the left hand or arm: Manjunath claims 'we can engage with the left hand [movements]';[99]
- Slacker strings at a lower pitch;
- Thinner strings;[100]
- A lower bridge that creates a minimal gap between the strings and the fingerboard;
- The application of coconut oil to the left fingertips;

[99] Violin lesson with Manjunath, 15 January 2017.
[100] While most of these modifications have become standard practice throughout South India, the thinner strings and slacker bow hair are specific preferences stated by the Mysore Brothers. Weidman makes reference to thin violin strings resulting in an arguably poor tone quality (2006: 41).

- The ramifications of a tropical climate for the breadth and texture (usually moisture) of the fingers;
- The bow hair is at a very low tension.[101]

The source material is gathered from an intensive period of twenty-two lessons with the Mysore Brothers in Mysore. While there are many implications of approaching the Karnatic violin setup from the perspective of Western classical violin playing, my discussion focuses on the resistance that is cultivated from, what was for me, a new physical approach to the instrument.

David Clarke (who studies the Hindustani *khyāl* vocal tradition) recognises three sites of resistance that can arise for musicians in situations with cultural encounters: i) in musical instruments and musicians' bodies; ii) at a technical and theoretical level; and iii) the wider cultural knowledge (2013: 177). The focus for the discussions of resistance in relation to my Karnatic violin lessons can be understood in terms of Clarke's first (this section and 4.3) and third (see section 4.2) sites of resistance. Resistance is a relatively recent topic for discussion in practice-led and observational research with musicians; David Clarke (2013: 196), Nicholas Cook (2013a: 306) and Sarah Callis et al. (2015: 1) each illustrate how resistance can act as a catalyst for, or pathway towards, creativity. For the purpose of this section, I focus on the first site of resistance (Clarke, D. 2013: 177) where the resistance that occurred during my violin lessons in India prompted me to propose a recalibration of the body and the instrument. Manjunath explained how he practises the violin without using coconut oil on his fingertips as a way of 'creating more obstacles and difficult

[101] See previous footnote.

scenarios which drastically restricts your movement'.[102] The ease of sliding created by the coconut oil is reduced, which increases the friction between the fingertip and the string. Olivia Sham playing piano music by Liszt illustrates what she can accomplish by employing complex fingering patterns to cultivate resistance: 'I thus used my reactions to such resistances to force me from trained, instinctive responses into finding creative ways to perform 'the' piece' (Callis et al. 2015: 19). The process of finding creative solutions is amplified in teaching practices in India that tend to comprise learning by imitation, which is the focus of the next chapter. With few verbal explanations, studying in India relies on considerable degrees of self-discovery as the student is forced to invent their own solutions for prising out the tacit knowledge of the teacher and negotiating the resistance with the instrument.

Initially I felt as though I could not play the violin in tune while playing in the Karnatic position.[103] The relatively uncomfortable shape and angle of the left hand fingers in relation to the fingerboard disconnected what is habitual practice when I play the violin in the Western classical position. In addition, I felt as though the harmonics and experience of pitch shifted to unfamiliar territory compared to when the violin is directly below the left ear (as in the Western classical position); in particular, the ways in which the auditory vibrations transmit through the body via the contact with the chin and collarbone. Baily uses the term 'auro-motor coordination' to describe the relationship between

[102] Violin lesson with Manjunath, 11 January 2017.
[103] Although this was not my first time playing in the Karnatic way, I had not maintained regular practice in the Karnatic position to develop a comfortable and reliable way of playing the violin in this position. It is worth noting that while I sought to experience the Karnatic violin as authentically as possible, I could not adopt all the modifications to the violin such as the lower bridge and thinner strings due to my violin being set up for Western classical playing.

auditory perception and hand/finger movement in musicians, whereby 'direct links between auditory inputs and motor outputs are built up' (1977: 309). While auro-motor coordination is not well understood (Baily 1977: 309), my experience of playing the violin in the Karnatic position undoubtedly demanded a recalibration of the auro-motor coordination. Baily's term auro-motor coordination can be understood in relation to violin playing as the way in which the position of the left hand fingers on the strings are instructed by an auditory expectation; the two together develop a physical memory constructed in the movement of the hands. In a way, my experience of resistance with the Karnatic violin was situated initially in what I was missing. Having played the violin for twenty-five years, there are many intrinsic physical experiences that were disrupted by the Karnatic way of playing. Focusing my attention on what I perceived was lacking obstructed the bodily senses of what was actually going on. Over the course of my daily practice, I gradually became more comfortable with this playing position and began to engage with the present experiences: sensing the vibrations of the instrument through the contact between the scroll and the right heel.

The modifications to the Karnatic violin and the way it is played lead to another experience of resistance that lies at the point of contact between the bow and the string, which cannot rely on gravity due to the angle of the fingerboard.[104] Violinists develop a sense of the feeling at the point of contact between the hair of the bow and the string, even though there is no direct contact between the

[104] There are more modifications that could be discussed here including the discomfort of sitting cross-legged for long periods of time; and the restrictions on the bow arm as a result of sitting cross-legged. It would be interesting to draw parallels between Karnatic violin and Western classical cello bowing techniques that both work with a similarly angled fingerboard and strings.

body of the violinist and either the bow hair or the string. Through significantly altering the felt sense between the bow and the string – and subsequently the connection between the right and left hands – the resistance I experienced of not being able to create an optimal tone quality produced a feeling of interacting with an external object. As a violinist from the Western classical tradition, I anticipated the feeling of the contact between the bow and the string from the perspective of my previous violin playing. My habitual knowledge of playing acted as a point of access to the experience of resistance with the violin while concurrently contributing to the resistance itself by providing a point of comparison with previous ways of knowing the violin. Arguably, managing the anticipation of an embodied experience creates a more complex path for resistance, which I explore in more detail later on. Working with resistance, the Karnatic violin shifted from an estranged external object to an extension of my musical body.[105] Was this a cognitive decision that I made, or a physical change, or a combination of both? Sitting cross-legged with the scroll of the violin resting on my foot arguably brought a different sense of awareness from what I was used to. I had to find new methods to be able to play with the physical as well as conceptual barriers that I experienced in Karnatic violin playing.

How might resistance be conceived in the case of playing the violin? Tim Ingold highlights some of the highly complex, lively and embodied possibilities that have ramifications for broader notions of culture and creativity:

> Human endeavours, it seems, are forever poised between catching dreams and coaxing materials […] It is precisely where the reach of the

[105] See Merleau-Ponty ([1962]2002: 165), DeNora (2000: 75) and Leman (2008: 138) for further discussions on the concept of extending the self.

> imagination meets the friction of the materials, or where the forces of ambition rub up against the rough edges of the world, that human life is lived. (2013: 73)

Ingold's claim is compelling when applied to musical practices that are constantly in equilibrium between craft and creative expression. As demonstrated by Manjunath's example with the coconut oil, the act of working with physical points of resistance between the body and an instrument lies at the heart of creative learning processes. Repeated engagement between the body and an external object can eventually dissolve resistant experiences, where the object can be perceived as an extension to the body. My experience re-discovering the point of contact between the bow and the string in the cross-legged position follows this progression. Exploring the endogenous and exogenous features of the body, DeNora questions the points where the 'body' ends and 'environment' begins (2000: 76). She claims that a shift in conceptualising the body-environment relationship can be a way of dissolving the border between the body and the external environment (DeNora 2000: 87). In the case of the bow on the string, the resistance at the point of contact eventually dissolved, resulting in new ways of experiencing the connection between the right hand and the bow on the string. This observation can be understood in light of Clarke's first site of resistance (Clarke, D. 2013: 177), where resistance occurred between the body and the violin as an external object.

On one level, working with resistance provides a transition from the unfamiliar to the familiar, opening up a space for new experiences as a common mode of human development, particularly in skilled practices. On another level, the fluid relationships between the body and the material world constitute more complex

cognitive forces. DeNora and Ingold shy away from multiple layers of resistance that can exist within the body, as illustrated by Baily's experience learning to play the Afghan *dutār* and *rubāb:* 'there is a trade-off between two opposing constraints: independence of the third finger and the frequency ratio of hand-finger movements' (1985: 255). My experience with the new point of contact between the bow and the string could be seen as a trade-off, or dialogue, with my anticipation of the illusion of feeling the string through the contact with the bow.

Looking back at Clarke's three sites of resistance (2013: 177), I now offer a perspective that draws attention to the interconnected nature of all three concepts, which brings together instruments and bodies, technical craft and wider cultural understanding. In particular, cultural knowledge can contribute to internal notions of resistance in the body and can extend beyond the scope of the interaction with the musical instrument. I now examine the notion of a cultural construct of the hand as a way of accessing physical experiences for violin-playing hands that can inform the ways in which musicians play with resistance. The following section serves to expose examples of cultural materials that become embedded in social and psychological life (DeNora 2000: 74).

4.2. From handedness to handiness: a cultural perspective

Experiencing culturally motivated hands in everyday life in South India provides access to a heightened perception of the use of the hands as a cultural context for violin-playing hands working with the third site of resistance (wider cultural knowledge; Clarke, D. 2013: 177). Although a culturally-based ethnography of the hand within the vast and complex cultural practices in Indian society is

beyond the scope of this research, I intend to briefly draw on a few examples from my own experiences with everyday activities in South India.[106] One dimension of cultural exchange highlights 'the existential condition of cultural life', rather than simply an inscribing of cultural values on the body (Csordas 1994: inside cover). Similarly, DeNora sets out a shift in focus in her approach from the way in which individuals experience culture towards a concept of body-culture interaction (2000: 76). Cultural life in the context of my research represents two avenues for perceiving the use of the hands: first, on a practical level where the hands serve functions that have gradually been replaced by tools in many modern societies; and second, at a spiritual level where many Hindu and Buddhist customs, such as yoga and meditation practices, seek to cultivate unity between body and mind. This section will present these two experiences as examples of culturally motivated hands that can foreground significant forces in the third site of resistance.

Different functions and rituals distinguishing between the two hands are prevalent in South Asia, the Middle East and North Africa. Generally, the left hand is considered to be 'unclean and unworthy […] often used exclusively for toilet purposes'; a Tibetan saying warns people to 'beware of the devils on your left hand side' (Napier 1980: 132).[107] Although not as distinctly embedded in European societies, the Western concept of handedness today generally refers to using tools, such as cutlery, and the writing-hand (although this is gradually

[106] Gestures linked to social status (or caste), profession, gender, language etc. could all have an impact and would be fruitful for further study in relation to culturally motivated hands.
[107] It is worth noting that the feet are also considered to be unclean in India. There is a customary Hindu ritual of 'taking the dust' – literally touching, as a way of showing respect – the feet of people who are elder relatives, highly respected (such as classical musicians) or leaders.

being replaced by increasingly neutral keyboard-typing and machine-operating hands).[108] Looking back at the historical origins of bowed string instruments noted in Chapter 3, Bor draws attention to the fact that in oral and visual accounts, string instruments are always held on the left side, which implies ancient customs of handedness that have traveled as people migrated (2010: 445). Humans (and some primates) universally have a dominant side of the body that is most clearly evident in the use of the hands.[109] Cultural observations of handedness shed light on different ways of thinking about the hands, including behavioural patterns that evolve through cultural customs, such as the unclean left hand. While the traditional paradigms of handedness do not relate directly to violin playing, my experiences and observations convey the analogy of a different cultural construction of the hand – and handedness – in all aspects of life.

Take for example the experience of eating with the hand in South India, which is traditionally done without using any cutlery.[110] For the celebration of *Sankranti*[111] Festival I was invited to eat a traditional festive meal with Manjunath's family, which consisted of a selection of different types of rice and

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[108] The words 'right' and 'left' derive from Latin origins for 'dexterous' and 'sinister' respectively. There are also derogatory slogans for left handedness that can be traced back to Medieval origins (Napier 1980: 132).

[109] See Napier (1980: 134) for a discussion on right-handed dominance and mixed-handed individuals.

[110] Traditionally meals in India are eaten sitting cross-legged on the floor without a table – however, this custom has been replaced by the use of chairs and tables in many homes, including Manjunath's, and at many festivals, restaurants, weddings etc.

[111] *Sankranti* is a festival celebrating the end of winter and the beginning of the harvest season. It takes place in January and is known with various names and rituals in different states: for example, *Sankranti* in Karnataka and *Pongal* in Tamil Nadu. *Sankranti* 2017 was on 14 January.

curries[112] (known as *thali*) served on a banana leaf. Although I had previously eaten curry 'by hand' (with the right hand), Manjunath demonstrated a more specific technique to me on this occasion. By squeezing the curry and rice between the fingertips and thumb of the right hand the rice is squashed so that it absorbs some of the curry. This creates a thicker consistency that is easier to get hold of, as well as allowing the spices from the curry to infuse into the less flavoursome rice. The fingers can be held together to scoop up the rice-curry mixture with the thumb acting as a lever to push the food into the mouth. One South Indian speciality, known as *rasam,* is a particular challenge to eat with the hands due to it being a watery soup-like composition made with tomatoes, water, lentils and spices. Manjunath's method of blending the curry into the rice needed a refined technique for eating *rasam,* but with practice I found it worked. People in South India claim that their food tastes better when you can mix it around in the playful ways that the hands can facilitate, particularly when a traditional meal includes several dishes with carefully designed complementary flavours. Another advantage, among many claims, lies in utilising the fingertips as a temperature gauge: if the food is too hot for the hands, it will be too hot to eat.

How might cultural customs, such as the 'hygienic' right hand, be conceived from the perspective of Karnatic violin playing? Two significant observations can be gathered from the experience of eating curry with the hand. The first is the way in which learning how to eat with the hand offers physical experiences that can

[112] I use the Anglicised word curry to refer to a selection of different dishes that have a sauce, or gravy as it is often referred to in South India (not to be confused with a British gravy).

draw parallels with some of the hand motions required to play *gamakas* on the violin. In particular, the way in which the fingers are held together to act as a spoon-like scoop can be translated onto the way in which the left hand fingers function for some *gamakas* in Karnatic violin playing; a technique I describe as 'block fingering'[113] where the left hand fingers function together as a block, rather than as separate entities as is the case in European classical playing, as shown in the example of violin-playing hands required for block fingering in Figure 3.6 and **Video example 3.5**. Lara Pearson's Karnatic violin teacher, T.V. Ramanujacharlu used the metaphor of 'a tightly closed flower bud' to illustrate the way in which the fingers of the left hand should be held together to create an oscillation (Pearson 2016: 56). This method of relating the hand to the instrument is significantly different from the Western classical method of moulding the hands around the notion of positions. In essence, the cultural construct of the curry-eating hand demonstrates a physical change in the use of the hands, opening up possibilities for working with sites of resistance and re-constructing violin-playing hands. This new way of thinking about the hand has ramifications for dismantling the concept of hand positions in relation to violin playing, which will be discussed in more detail in the final section of this chapter.

The second observation turns towards a spiritual context for the hand in South Asia. Many religious icons illustrate the significance of hands in spiritual and cultural settings (Carroll and Carroll 2012: 21-2), revealing a specific relationship with different parts of the body, particularly the extremities. Taking my daily experiences in India as a field of enquiry, I offer a secular perspective to

[113] See Chapter 3 for a description and demonstration of block fingering.

the Hindu and Buddhist traditions that I was exposed to. In particular, it was my daily yoga practice in Mysore that opened up new ways of thinking about the way the hands are used in violin playing, through learning hand *mudras.*[114]

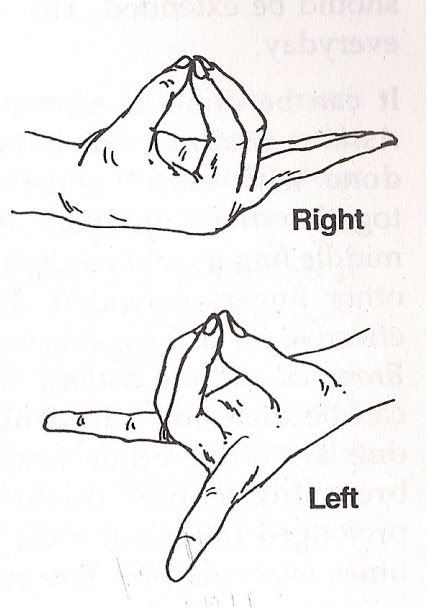


Figure 4.1. *Pushan Mudra* (image reproduced from Menen 2015: 61).

Mudras are a form of hand gesture that can be traced back to texts from the tenth century (Menen 2015: 19-20). Gertrud Hirschi describes the underlying concept for understanding the *mudras:* 'we can consider the hands to be a mirror for our body and our mind' (2000: 3).[115] Aside from the subjective goals of healing the body through the hand *mudras*, the focus on the hands along with the yogic breath arguably cultivates a mindful and enhanced awareness of the hands in everyday living.[116] On a basic level, any heightened bodily awareness

[114] The *mudras* have three main places of use in India: in yoga practice, ritual and in Indian dance and drama (Carroll and Carroll 2012: 9).
[115] The Buddhist teachings underpinning my lessons (and the work of Hirschi and Menen) argue in favour of rather subjective outcomes from the practice of *mudras,* such as the alignment between the hand gestures with different ailments. For example, the *Pushan Mudra* in Figure 4.1 is intended to improve digestion when practised for five minutes at a time, four times a day (Menen 2015: 61).
[116] It is worth noting that the Sanskrit word 'yoga' translates to unity: both at a spiritual level and between body and mind.

encompassing the mind and the hands can be translated to the experience of playing a musical instrument.

Looking in more depth at the hand *mudras,* the gestures involve 'bending, crossing, extending, or touching the fingers with other fingers' as a way of engaging body and mind (Hirschi 2000: 2). Due to the anatomical linkage between the ligaments of the second and third fingers (Baily 1985: 254) the straight and parallel position of the third and fourth fingers in the right hand *mudra* in Figure 4.1 is not necessarily possible without any practice. Contorting the hands in multiple ways to practise *mudras* opens up further possibilities for the ways in which the hands are used at a physical level. The experience of practising the *mudras* also demarcates the different gestures and motions that are unique to each finger of the hand. My experience of taking a secular approach to hand *mudras* laid the groundwork for a heightened degree of awareness for the ways in which the hands and fingers can relate to each other and be manipulated – in particular, drawing attention to the anatomical properties of the hand, such as the interdependence between the movement of the middle and ring fingers. The experience with the *mudras* opened up new ways for perceiving my hands and the ways that they can be used. Turning to the violin-playing left hand, there are implications for how we might conceive of the way in which some of the fingers are interdependent. The hand *mudras* provide a context for examining an anatomical notion of the violin-playing hand, which, I argue, can inform points of resistance in the hands and leads me to challenge the Western classical numbering system for the fingers later on in the chapter.

4.3. Re-constructing the violin-playing hands

The term 're-constructing' in the context of my work represents the ways in which the physical feeling of relating to the violin is continuous with the knowledge of the possibilities of the hand, by virtue of using the violin in new ways. In some ways the process I experienced can be understood as re-conceptualising the relationship between the body and the violin; however, the notion of re-constructing draws on a cultural construction of the hands that can encompass a more unified approach to body and mind, rather than a purely cognitive realm.

The Karnatic way of playing the violin introduces many challenges for the left arm and hand of the violinist. Observing Karnatic violinists in performance demonstrates how the left hand often appears to be moving so fast that it becomes a visual blur, while maintaining a clear auditory sense of pitch and melodic line.[117] **Video example 4.1** demonstrates an example of Karnatic violin playing in a live performance by the Mysore Brothers, with characteristically fast playing by Manjunath (right) from 00:12. At 00:15 Manjunath applies coconut oil to his fingers to facilitate the increasing speed, which then builds up until a repeating motif is played with the left hand in constant motion from 00:42 to 00:49. While my ability to reproduce anything similar is a long way off, I observed a key technique which renders this kind of playing possible: the left arm is in constant motion, rather than operating within fixed positions (first

[117] There are many questions that could be asked about Karnatic music, and specifically violin techniques, in relation to the notion of virtuosity – this lies beyond the scope of my research.

position, third position etc.) as is characteristic of the European approach. When I mentioned this observation to Manjunath, he responded by saying that 'this movement is so unique to Indian [violin] playing – it's not only fingering, it's flexibility'[118] – and I would add that it is also fundamental to playing in the Karnatic system. The left hand motion enables a series of notes to become, what Manjunath refers to as, 'one entity'[119] and draws together the continuous physical movement with the theoretical understanding that *gamakas* cannot be separated from *svaras*. The notes themselves, or *svaras,* are 'not a strictly static phenomenon', leading to Pearson's coining of the term '*svara-gamaka* unit' that does not isolate the *svaras* and *gamakas* as independent techniques (2016: 46, 53). My experiences of learning, practising and observing Karnatic violin playing prompt me to argue that this is as much of a cognitive transition (by virtue of a theoretical understanding) as a physical gesture. A shift is required to comprehend the relationship and entanglement between *gamakas* and *svaras,* as a mechanism to liberate the left arm from the framework of positions that are used in Western classical violin playing.

Given the speed of playing and the fact that teachers do not often play phrases in slow motion for teaching purposes (as this changes the *gamakas* and consequently the intent of the music), playing the violin with the left arm constantly moving presents significant challenges for me as a violinist. My initial experiences reveal a movement that engages with increasing risk-taking in comparison to playing within the relative safety net of pre-established

[118] Violin lesson with Manjunath, 16 December 2016.
[119] Violin lesson with Manjunath, 30 December 2016.

frameworks provided by the Western classical notion of hand positions. Manjunath explained that:

> The thumb should always be moving; we don't have a particular position for the thumb [such as] first position, second position. We don't have those positions at all, because you are not supposed to have any fixed position. […The] thumb movement is continuous, depending on the circumstances. [For example, a] particular *gamaka* should not be played in first position; it's a combination of first and second, or second and third.[120]

Although there is a clear difference from the Western classical concept of hand positions, Manjunath's comments above indicate that a framework for the hand still exists. The extent and nature of this framework presents an example of Manjunath's tacit knowledge – where he recognises that a *gamaka* uses a combination of first and second position, but cannot provide any further explanation.

A particular challenge is deciding when and where to place the fingers on the fingerboard to create the desired pitch while the arm is moving. As with learning to change position in the Western classical violin tradition, the skill of keeping the arm moving needs to develop over time (see Mozart [1755]1951: 132; Galamian 1962: 15; Boyden 1990: 84, 251, 374; and other treatises on hand positions in Western classical violin playing). Taking an anatomical perspective on the left arm, Otto Szende and Mihaly Nemessuri's analysis of changing position in Western classical violin playing observes that 'the thumb muscles become relaxed and allow the free displacement of the hand. As soon as the new position is taken up, however, […] the thumb supports again' (1971: 71). Applying this same approach to the left arm in Karnatic violin playing suggests

[120] Violin lesson with Manjunath, 15 January 2017.

that the thumb muscles need to be continuously relaxed in order to facilitate the constant motion of the left arm. While the thumb does not need to support the instrument in the Karnatic violin position, reducing the thumb pressure – as well as the variations in pressure that facilitate changing position – is a significant (and arguably valuable) adjustment to make.

While hand positions provide a framework to operate within, unlearning this method of relating to the violin initially seemed necessary in order to engage with the continuous motion required. Is it possible to unlearn a skill that is integral to playing one style of music but not another? As Henderson observed while learning to play the tabla in Nepal:

> I could sit down at any of these drums and tell my hands to pretend they did not know anything, and to make them behave as if they didn't, but this was only a feigned absence of knowledge. (2009: 185)

It is interesting that Henderson uses the phrase 'tell my hands', which suggests that the hands are an external agent that is controlled exclusively by the cognitive notion of the first person 'I'. Henderson's observation reflects a disembodied approach to the extremities of the body by offering a disconnected perspective on the way in which the hands and mind work together. Instead, a cultural perspective from South India offers a contrary perspective where 'the hands are the focus of most of what we do, reflecting how we relate to life and how we touch the world' (Carroll and Carroll 2012: 9). Approaching my Karnatic violin playing with new perspectives on the hands, I altered my perception in two main ways instead of attempting to unlearn, or pretend my hands did not know, an established method for playing within hand positions: first, through realising that hand positions can be utilised within the Karnatic system; as

violinist Sumanth Manjunath[121] explained, positions can be 'a positive thing' for all violinists;[122] and second, considering a new physical sensation for the left arm as a way of creating the required technique.

The observations and experimentations needed to create the gesture of the left arm in constant motion sheds light on the integral relationship between body and mind in violin playing. In order to keep the left arm in constant motion, I had to re-imagine the physical sensation in the left arm, initially letting go of my imagined map of positions on the fingerboard and then reintegrating the positions within the new movement. A similar process can be drawn from Rice's experiences learning to play the Bulgarian *gaida,*[123] following a comment from his teacher: 'you don't have 'gaida player's fingers'' (1994: 80). Through transforming his theoretical understanding of melodic and ornamental concepts into one unit (comparable to Pearson's *svara-gamaka* unit in Karnatic music), he was able to develop a physical solution to the mystery of 'gaida player's fingers' by unifying the conceptual and physical motions (Rice 1994: 83-4). Rice commented that this was 'something I learned not by watching him [the teacher] but by reconceptualising the way the hand must move' (1994: 84). Similarly, in Karnatic violin playing there is a reconceptualisation at a theoretical level, but Henderson and Rice both focus on a cognitive shift that controls the physical movement in, what could be seen as, a disembodied approach to the hands.

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[121] Sumanth is the son of Manjunath and has been taught by both the Mysore Brothers. The counter argument in favour of working with hand positions is that it facilitates chromatic playing. Karnatic violinists instead rely on the open string being the tonic and consequently the movements of the hand correlate directly to the open string.
[122] Violin lesson with Sumanth, 13 January 2017.
[123] The *gaida* is an Eastern European wind instrument, similar to the bagpipes.

Taking an approach that focuses more on the bodily experience, I had to embrace a new sense of the physical movement to keep the left hand in constant motion.

Following my realisations about auro-motor co-ordination and the constant motion of the left arm, I began to observe the use of different fingers and finger patterns.[124] As with all Karnatic violin techniques, there are no established rules or treatises for the gestures that generate the *gamakas.* Drawing on a cultural view of the hand within a South Asian context, I propose that Karnatic violinists do not always follow the first-finger-centred view of the left hand that underpins European violin playing and teaching (where beginner violinists tend to use the first finger first, followed by second etc. and the first finger provides the foundation for each hand position, see Boyden 1990: 374). Instead, Karnatic violinists can favour the middle (or second, in violinists' terms) finger as the longest digit in the centre of the hand. Manjunath explained that the first and second fingers are 'naturally' the most widely used, while the third is also common and the fourth takes on the role of stopping the string and for left hand *pizzicato*.[125] Nagaraj stated a preference for playing whole phrases with the index finger for the first two tones of each open string, then taking over with the middle finger to utilise the length of the finger to reach the higher positions (as shown in **Video example 3.2**), claiming that the middle finger is also the strongest.[126]

[124] A comparison of the finger patterns used by the Mysore Brothers playing unison melodies lies beyond the scope of this research, but could extend my hypothesis further, particularly given the varieties and combinations found within two brothers from the same school of violin playing.
[125] Violin lesson with Manjunath, 15 January 2017. Although Manjunath used the numbering system in these lessons when responding to my questions that referred to the fingers with numbers, this was not always the case.
[126] Violin lesson with Nagaraj, 10 January 2017.

While a move away from a first-finger-centred perception of the left hand needs further groundwork with a wider sample of Karnatic violinists and varies considerably across different *rāgas*,[127] I argue that the Western classical numbering of the left hand fingers implies a hierarchical and linear perception of the hand starting with the first finger. I realise that it is not the intent of violinists to suggest a hierarchy for the fingers, as the numbering has a valuable function for instructing left hand finger patterns in scores, but instead argue that there are outcomes of this method that could be explored further. Karnatic violinists do not usually number the fingers, prompting me to question whether stripping away the numbering can bring a more anatomically-based notion of the left hand with a sense of balance around the centre of the hand and the middle finger. An anatomical view of the hand in Baily's study of the Afghan *dutār* and *rubāb* shows qualities of the hand that can inform violin-playing hands: 'there is an anatomical linkage between the ligaments of the second and third fingers that makes it difficult to achieve complete independence of the third finger and hence, to use the three fingers as independent components' (1985: 254). Baily's observation highlights an asymmetrical understanding of the hand, partly determined by the way the fingers relate to each other. Challenging the numbering system and index finger-centred view of the left hand adds further insight into the way the left hand moves in Karnatic violin playing. Dismantling the Western classical notion of working within the framework of positions can be understood as setting up a process for working with the first site of

[127] Given that *rāgas* vary in the number of pitches they include, those that leave out *Ri* (the second degree that is played with the index finger) would be fruitful for further study.

resistance: between the body and instrument. While Baily's unquestioning reference to the linear numbering system for the fingers of the left hand appears rather incongruous with his observations, his perspective represents how a biological understanding of the hands can facilitate new ways of playing string instruments.

This section has revealed three interlinked physical properties of the left hand and arm that are fundamental to Karnatic violin playing:

(1) The left arm is in constant motion;

(2) The left hand is not bound to set hand positions;

(3) The middle finger can lead the left hand.

Throughout my lessons with the Mysore Brothers, this use of the left hand and arm revealed a notion of violin playing where the body is perceived as a whole being. While I still consider myself as a beginner in the Karnatic violin tradition, my experiences so far have demonstrated a significant need to recalibrate several fundamental components of violin playing. Towards the end of my studies in Mysore, Nagaraj gave some rare feedback on my progress, saying 'you are doing fine, you are getting the grip'.[128] Although the term 'grip' implies a hold of the instrument and is contradictory to the light and fluid touch I had observed, Nagaraj's reference to the physical sense in the hand reveals the fundamental (and often unspoken) physical relationship between the body and violin that underpins Karnatic violin playing.

[128] Violin lesson with Nagaraj, 16 January 2017.

4.4. Conclusions

To conclude, I draw on theoretical concepts of the body interacting with the external world as a framework for understanding the significance of my embodied experiences with Karnatic violin playing. Manjunath repeatedly used the word 'handle', emphasising the centrality of the hand in violin playing: 'each *gamaka,* each oscillation, each *rāga* is different, as a character; and I should know how to **handle** it […] I'm so happy to be blessed to **handle** an international instrument'.[129] On a practical level, the verb 'to handle' points to a sense of touch connecting the musical body with the instrument, which is not implied by the more action-based syntax behind the commonly used words 'play', or 'perform'. A purely physical perspective on violin playing also refers to 'handling the violin' (Wiesendanger et al. 2006: 109) in a biomechanical approach to musical performance. Violinist Peter Sheppard Skærved discusses 'a practice that involves a literal (as well as metaphorical) 'laying on of the hands'', both in terms of the physicality and craft of the instrument, but also in the previous violinists whose playing and posture informs his own approach (Clarke et al. 2016: 156). Looking at literary sources from ancient India, some scholars believe that the word for violin that is found in most European languages is derived from the word *bāhulīn,* which translates as 'an instrument handled by a hand', where the Sanskrit word *bāhu* refers to the 'arms' (Pesch 2009: 120). In addition, the *rāvanahasta* discussed in Chapter 3, literally translates as Ravana's hand, from the ancient epic of the *Rāmāyana* (Bor 2010: 431) – highlighting the value of sources passed on from poets, storytellers and musicians through the oral tradition. Drawing on these approaches, Manjunath's reference to 'handling' the

[129] Violin lesson with Manjunath, 15 January 2017: emphasis added.

violin invites three potential readings: first, the notion of the violin acting as an extension to the body, as outlined in my own findings; second, a perceived social and historical value applied to the instrument, which is present in Sheppard Skærved's experience; this connects with a lineage of violinists that is fundamental to the guru-based system of learning Indian classical music and will be discussed in the next chapter; and third, a wider cultural understanding, that can be unravelled through practices such as yoga and the hand *mudras*, where the cross-legged posture and use of the hands is woven into the physical experience of playing the violin in India.

Unlike the Karnatic violin, the European violin has adopted a standardised form, which was not the case in the past. While musicians, particularly ethnomusicologists (including Baily 1977, 1985, 2001; Rice 1994; Farrell 2002; Henderson 2009; and Clarke, D. 2013) have documented learning processes as research methodology, the violin has provided relatively uncharted territory where the instrument is a consistent and familiar entity across different cultures, but the way in which it is approached is considerably modified. Looking at the resistance brought about by the adaptations to the instrument and the way that it is played prompts me to ask how a re-construction of the violin-playing hands can provide a way of accessing the tacit knowledge of Karnatic violin teachers. Several practice-led accounts of playing a musical instrument question the physicality of the hands: how tabla-playing hands should 'feel' (Henderson 2009: 193); a search for the 'elusive 'gaida player's fingers'' (Rice 1994: 84); David Sudnow's experience that jazz piano playing becomes 'embodied in the ways of my hands' (2001: 128); and pianist Mine Doğantan-Dack's notion (or illusion) of

the 'singing hand' and the 'singing touch' as a method for experiencing piano music (2011: 256-8).

Skilled workers from various disciplines are familiar with the feeling of the hands developing a sense of independence from the mind. *Sitar* player Ravi Shankar recalls his early experiences:

> I was quite advanced in music. But my hands were far behind because I had spent so little time practising the basics. I used to hate the scales and exercises; it was a spiritual torture to me, because my hands could never catch up with the idea of the music in my head (Shankar and Menuhin 1968: 73).

Shankar's comments highlight how cultivating knowledge of and in the hands is a goal for music students, where the hands can lead the mind and execute any musical idea or composition. Developing an embodied sense of the hand as an organ of knowing, Henderson describes his experiences in relation to learning the tabla: '[I] watched with avid interest as my hands began to think and feel for themselves' (2009: 202). Henderson's embodied illusion that locates cognition in the hands is contradicted by Rice's understanding of a similar experience as being disembodied:

> Once I learned how to move my hands in order to play, they seemed disembodied; as I played, I watched them move, heard the rich array of sounds, and wondered who was controlling them. The sense of my hands as possessing knowledge independent of my mind was quite vivid. (Rice 1994: 113)

Contrary to a disembodied experience, the sense of the hands possessing knowledge can in fact be seen in the opposite way, as a profoundly embodied experience for accessing new ways of playing. From a psychological perspective, the concept of extending the self through the hands can lead to the 'manifestation of the 'knowledge of the hands'' (Radman 2013: xxii). This

chapter has argued that the point at which hands move independently from the mind – where the violin-playing hands are an organ of knowing – was reached through my physical understanding of culturally motivated hands in everyday activities in South India. In essence, if we are going to understand the process of playing with resistance as a means of developing embodied knowledge, it needs to be situated within an environment that is 'a culturally and socially constructed niche' (Menary 2013: 349); where cultural and social experiences of the body act as a way of constructing new skills.

Finally, I turn to cognitive psychology, which offers further insight into creative learning processes. The experiences and approaches of the teacher and student can be viewed as a state of 'complementarity'; where the expert teacher can describe strategies at a macro-level, but his/her intuitive behaviours mask the detailed methods and micro details required by the student (Miller et al. 1970: 83). On the other hand, the student can develop muscular actions in isolation, but requires tactics for combining the movements to perform the intended skill (Miller et al. 1970: 83). In an example of learning to fly an aeroplane,

> The general strategy provided by the teacher says nothing about the activities of individual muscle groups – the instructor "knows" these intercalated acts because he [/she] knows how to fly, but they are locked in, implicit, tacit, rather than explicit and communicable. (Miller et al. 1970: 83)

In experiencing Karnatic violin playing, the construct of the hand was embedded – possibly locked – in Manjunath's violin playing. For me, experiencing culturally motivated hands provided access to one component of Manjunath's tacit knowledge of the Karnatic violin.

The examples from my Karnatic violin lessons have demonstrated how cultural constructs of the body can provide a path for working with resistance. I have illustrated how instruments and music do not exist in isolation, but instead there are many behaviours, habits and cultural practices relating to how we interact with our surroundings. In this case, the resistances were culturally constructed and bound up in a complex web of knowledge from my Western classical violin training and the Karnatic way of playing the violin that I was attempting to access. The examples illustrated in this chapter demonstrate how creative learning requires varying degrees of self-discovery, often in ways that are different from the teacher – or outside the teacher's conscious awareness. To summarise, my experiences with Karnatic violin techniques employed cultural constructs of the hand as a way of working with Clarke's third site of resistance (2013: 177), leading to a re-construction of the violin-playing hand. Returning to the source of my Karnatic violin experience, I conclude with Manjunath's description of Karnatic violin playing: 'It's a concept – the movement – it's Indian […] – it gives the special microtonal effects [and creates] typical, exquisite South Indian *gamakas*'.[130] These rather elusive descriptions invite further investigation: how can the 'concept', the 'movement' and the 'Indian' quality constitute a Karnatic way of playing the violin? Referring to cognition, physical gesture and culture respectively, Manjunath's description situates mind and body in a cultural understanding that lies at the heart of Karnatic violin playing.

[130] Violin lesson with Manjunath, 17 December 2016.

Chapter 5

The Karnatic guru: a collaborative model

To open this chapter, I reflect on my first experiences of learning the violin in India ten years ago. Without prior experience or knowledge of Indian classical music, I was immediately struck by the teaching methods. While I had anticipated learning by ear without notation, the process of learning by imitation came as a surprise. Having trained as a violinist in the Western classical tradition, my experience of learning the violin in the UK can broadly be described as analytical and interactive, the teacher providing verbal explanations of musical, technical, historical and other features alongside demonstrations of playing. Furthermore, the teachers I have worked with in the UK aim to develop a relationship based on dialogue and questions from both teacher and student. Following the tuning and positioning of my violin (as outlined in Chapter 3), my first lesson with violinist Biswajit Roy Chowdhury in Kolkata consisted of a series of call and response phrases. The imitative process continued to be the fundamental method for teaching in these lessons, as well as those that followed with other teachers in South India. While my research is primarily focused on lessons with Karnatic teachers, the experiences from my early meetings with a guru from the Hindustani tradition provide a glimpse into the breadth of the guru-*shishya paramparā* (broadly defined as master and disciple tradition), highlighting the extent to which teaching practices are widespread across India and contrast with those more commonly found in Europe. As a stark contrast to my experiences learning with European violin teachers, imitative learning presents many challenges and forms the central point of examination in this chapter.

While this research does not aim to make systematic comparisons between Karnatic and Western classical violin teaching, my own experiences of studying in India contrast with prior learning and teaching practices. This chapter investigates a small-scale evaluation of the teaching methods of several Karnatic violinists with whom I have studied, as well as insights from musicians I have interviewed. The focus lies in a case study that was set up as a collaborative composition with Karnatic violinist Jyotsna Srikanth in London and illustrates the established and embedded nature of the guru-*shishya* relationship. I aim to unravel some of the more implicit processes of *gurukula* teaching by examining them in light of theories of knowledge. In particular, many components of *gurukula* teaching can be understood as fundamentally procedural in nature, which are deeply embedded within Indian culture. I ask:

(1) How can different ways of knowing inform our understanding of learning Karnatic music?

(2) What can a collaboration between teacher and student reveal about the guru-*shishya* tradition and relationship?

Following on from the findings situating Karnatic learning in the cultural and embodied experience of playing the violin, this chapter addresses ways in which social relationships and psychological dynamics shape ways of knowing the violin. The collaborative model challenged the conventional roles of the *shishya* as subservient to the guru with the aim to create a new co-authored piece for two violins. The collaboration was not limited to the conventions of the Karnatic music system and aimed to move away from the guru-*shishya* model of working. However, the process and resulting piece can both be identified as firmly within

the Karnatic tradition, calling into question the extent to which this was a collaborative process as distinct from a regular Karnatic violin lesson. I draw attention to the process of learning and suggest that the gradual course of enculturation can invite an understanding of knowledge that focuses on a more permeable relationship between different theories of knowing. To conclude, I propose a model of creative collaboration for examining teaching practices and as a method for learning and interacting with Karnatic music.

5.1. The guru-*shishya paramparā*

> In its highest form, [*gurukula* teaching] is a communion of minds, where the essence of a tradition is passed on to another generation; first, the transference of information to the recipient, then the gradual transformation of that information into knowledge, and finally the knowledge maturing into wisdom. (Menon 1982: 16)

The historical concept of the guru can be dated back to Vedic times (c. 1500-500 B.C.) when the guru was responsible for imparting the Vedic tradition (Slawek 2000: 457). The poet Asvaghosa from the first century B.C. provides insight into the status of the guru in ancient India in his 'Fifty Verses of Guru-Devotion'. As an example, number 46 instructs the *shishya* to 'do whatever pleases your Guru and avoid doing anything he[131] would not like' (Asvaghosa 1975, cited in Slawek 2000: 458). At this time, the notion of a guru was predominantly within a spiritual context, which also encompassed the arts.[132] As *sitar* player Ravi Shankar explains, the historical understanding of the guru is a 'master, spiritual teacher, or preceptor, […] we consider him to be the representation of the divine'

[131] Traditionally, the role of the guru was exclusively for men in India; whilst this is not the case today, there are still many questions that could be explored surrounding gender inequality in classical music in India today.
[132] See Mackenzie (1998: 41-50) for an account of a rigorous spiritual training with a Buddhist guru.

(Shankar and Menuhin 1968: 11). From the perspective of both the guru and *shishya,* the commitment to one another is considered to be for life and comparable to marriage, or a parent-child relationship, traditionally initiated with a *ganda* or *nara* ceremony (Shankar and Menuhin 1968: 11). Some of the implications of the loyal and lifelong bond between the guru and *shishya* will be discussed in relation to music teaching later on. In light of these understandings of a guru, I adopt the Sanskrit terms that have different meanings from the English equivalents. It is worth noting that the term guru here is used to represent the ancient concept of the role instead of the more generalised understandings that have recently become part of English vocabulary (Slawek 2000: 457).

The conventional method of music education in India is known as *gurukula* (or *gurukulam, gurukulavasam* depending on the region and language), which literally translates from Sanskrit as 'household of the guru' (Slawek 2000: 457). Traditionally, the *shishya* lives with their guru and serves them throughout their lifetime, gradually performing alongside them and eventually on their own.[133] Following a format like that of an apprentice or disciple, the *shishya* is expected to surrender his or her own ideas and follow the guru with 'blind faith', without questioning the purpose or any aspect of the education (Grimmer 2011: 96). Consequently, the guru-*shishya paramparā* demands a lifetime of submission and devotion to one guru (Clarke, D. 2013: 180). In this respect, the guru is often treated with a God-like reverence (Grimmer 2011: 91) that is arguably rarely

[133] Training to be a musician in India is a lifelong undertaking in the traditional *gurukula* system – Ravi Shankar estimates that it takes at least twenty years of consistent practice to reach a professional standard (Shankar and Menuhin 1968: 13). Many professional musicians continue to have lessons with a guru alongside a prestigious performing career.

challenged, in line with the historical context of the guru outlined in the previous paragraph. For the *shishya,* the significance of the guru's reputation is paramount as musicians' credentials in India are partly based on whom they have studied with (Neuman 1980: 44). Having distinguished between the different roles of a guru and teacher, Weidman draws on the 1966 treatise on music teaching in India by P. Sambamoorthy in explaining that

> Whereas gurus were known for their mercurial temperaments and their genius, teachers needed to be more even-tempered and less exacting. In the gurukula system, there was no separation between a 'teacher' and a 'curriculum' to be taught. (Weidman 2008: 244)

While I have not encountered any mercurial temperaments in my own experiences with Karnatic gurus, Manjunath asserted a clear authority; he never scheduled any lessons in advance, but instead phoned me when he was available to teach, regardless of whether I had other engagements. This in effect established a hierarchy where my schedule and violin practice had to be continuously flexible and adjust to Manjunath's commitments and unpredictable agenda.

During a trip to Chennai (2011-12), I was able to observe a small *gurukula* called *Bala Brundam*, run by vocalist Smt. Seetha Rajan and her husband Sri. K.V. Rajan. The training was specifically for young women who studied singing, music theory, musicology, languages and instruments, such as the violin or *veena* – as well as carrying out more menial household tasks. Observing the traditional *gurukula* teaching style at *Bala Brundam*, it was clear how the learning process in India is a long-term absorption of music. This begins with the *shishya* doing household tasks while listening to the guru practising and teaching, eventually

earning a place in classes while continually listening to the lessons of more advanced students. The singers at *Bala Brundam* spend the majority of their time outside regular school education at the *gurukula* – seven days a week – being surrounded by music as much as possible. Whilst I have not been part of a *gurukula*, observing and researching this system has informed and supported my understanding of the ways in which I have been taught in India; namely the focus on teaching by imitation and listening rather than the more analytical methods that I experienced in my previous European education.

Teaching is held in high regard in India and is closely tied up with the status of performing musicians. As part of a *gurukula,* students find themselves conducting peer-directed learning on behalf of the guru (Grimmer 2011: 104). For example, when my guru Manjunath was not available to teach me, his brother, Nagaraj, one of their sons or another student took the lesson, but their contributions were not usually acknowledged as 'only one is acknowledged as *the* guru' (Neuman 1980: 51; original emphasis). When musicians reach a standard that permits them to perform independently from the guru and they begin to establish a name as an artist, teaching plays a vital role in cultivating a reputation and status.[134] In comparison to instrumental music teaching in the UK that is often regarded primarily as a means of earning a living rather than as an integral part of a performing career, Karnatic musicians who have served a guru then turn full circle and assimilate a network of *shishyas* around them to

[134] The status of a professional musician in India is determined following an audition at the All India Radio, which was introduced in the 1950s with the aim to regulate standards. The audition results in a grade (A, B or C) that stays with the musician for the rest of their career and has a significant impact on the path of their professional or amateur (in the case of C-grade artists) music making (see Weidman 2008: 238–9). As an example, the Mysore Brothers are in the top category of A-grade artists, which is the highest rating for a performing musician.

perform menial tasks at home and, more crucially, at concerts. Being surrounded by attentive students sitting alongside their guru on a stage is considered to elevate the performer's status – and undoubtedly their confidence. In addition, teaching is considered to be a duty for successful musicians as a way of keeping their *bānī*[135] alive; the *shishyas* take on the responsibility of continuing the legacy of their guru (Neuman 1980: 49). Consequently, it is common for gurus to withhold the more subtle aspects of their art exclusively for their favourite *shishya,* who is deemed worthy of transmitting the 'trade secrets' (Neuman 1980: 58) in their purest form. The notion of musicians operating within a wider social network of artists – as part of a *gurukula* and/or *bānī*, rather than as individuals, will be used to inform my discussions later on.[136]

Weidman argues that the *gurukula* system 'represents the pre-modern, a mode that existed before the differentiation of time into concerts and music lessons […] before the separation of music from life in general' (Weidman 2006: 246). Ultimately it represents a mark of 'Indianness' and is distinctly different from the teaching methods in European education that have infiltrated school teaching in India, since the British rule of India (Weidman 2008: 227). Lucy Green explains that:

> A robust counter-example [to models of teaching Western classical music] is India, which in spite of the existence of British-based classical instrumental grade exams there, has held on to a proud tradition of not only indigenous and highly specialized classical musics, but also very

[135] See Chapter 3.

[136] Although parallels can be drawn between *gurukula* teaching and some of the schools of Western classical teaching where the teacher exerts a high degree of authority over the student, the Indian system and the guru-*shishya* relationship is markedly different in the ways in which the diligence of the *shishya* is embedded in social, cultural and spiritual models of learning, as I will explore in section 5.3.

> specific forms of music education in the traditional *guru-shishya* mould. (2012: 49)

Traditionally gurus would not let their disciples listen to music played by any other musicians, as a way of ensuring complete control over the *shishyas'* playing style. Nowadays, this is becoming less common, resulting in more overlapping styles as musicians take their influences from a range of different musicians (Chelladurai 1991: 21) – also aided by the Internet. However, the traditionalists treat the *gurukula* education almost as a 'monastic discipline' and believe that if young musicians listen to performers other than their guru, they will lose their 'stamp of individuality' (Weidman 2006: 249).

Although the traditions of living with and being subservient to a guru are adapting with changing lifestyles in the twenty-first century, my experiences demonstrate how these traditions still provide the underlying social and cultural structures for teaching and learning classical music in India. Namely, *gurukula* teaching encompasses a mode of transmission with few boundaries between what can be considered to be lessons, observations or household tasks: 'you literally *live* the music' (Grimmer 2011: 92; original emphasis). Grimmer's quote draws attention to the ways in which Karnatic music is closely bound up with everyday life; in essence, music, culture and everyday living need to all be taken into consideration when examining the *gurukula* system.

Whether the *gurukula* system can survive in the twenty-first century alongside digital technology is a question that needs further exploration. Both Grimmer and Weidman argue that the process of making audio and video recordings of

lessons disrupts the slower absorption process that is fundamental to *gurukula* teaching (see Weidman 2008: 234-242; Grimmer 2011: 107). Recording arguably fixes a work, including the *gamakas* and improvisations that demand a more flexible approach in Karnatic music. Weidman claims that 'the absence of technology is, in most accounts, what makes gurukulavasam possible; there can be no tape recorders or radios to interfere with the live transmission of the guru's voice' (Weidman 2008: 226).[137] The quality of listening is arguably altered by the awareness that a lesson is being recorded rather than the instructions and music being a single rendition that needs to be remembered, practised and then played by the *shishya* in the next lesson. Grimmer points out that the musical tradition evolved as a result of a reliance on memory that cannot always precisely replicate a guru. One guru explains: 'What is really beautiful about tradition is that a big thread or root is kept constant, while the bulb around it is always changing' (Grimmer 2011: 107).

While many gurus accept the changes brought about by the digital era, these shifting attitudes are still viewed by traditionalists as a hindrance, rather than facilitating the learning process.[138] Repeated listening to recordings offers the possibility for musicians to produce an exact imitation of a guru, which arguably threatens the dynamic and evolving character of the musical tradition. Contrary to these critical accounts of using technology in education, Green discusses how reproducing recordings is a process that is deeply embedded within the oral

[137] See Weidman (2008) for a discussion about technology in relation to 'how ideas about tradition and authenticity came to be formed in the encounter with [modern] technologies' (2008: 227).
[138] There are however exceptions, such as the almost unbiquitous use of an electronic *tanpura* to provide the drone, as well as *tala* metres for practising rhythmic improvisation when a percussionist is not available.

learning processes found in popular music culture (2001: 61). Green's observations and interviews with popular musicians offer insights that can resonate more broadly with other oral musical traditions, including Karnatic music. One interviewee comments that learning from slowed-down records gave him 'an insight into the way other musicians were thinking, the way they were conceiving, the way they'd approach a problem' (Green 2001: 73). In contrast to the claims above about fixing a tradition, Green argues that learning from recordings cultivates different types of listening – identified as purposive, attentive and distracted[139] (2001: 23-4) – which, when combined, lead to 'a less conscious approach, an approach which has more to do with enculturation into and enjoyment of music […]' (Green 2001: 67).

In India today it is almost impossible to avoid technology in music education – drone boxes and mobile phones in particular. Musicians' careers have been transformed away from a system funded by patrons that facilitated a fulltime commitment to music by both the guru and *shishya*, to a model that more closely resembles the livelihood of European classical musicians today (as briefly discussed in Chapter 3). In questioning whether '*gurukulavasam* is dead', Weidman concludes that technological possibilities such as recording and the radio have instead provided musicians with potential by being able to listen to performances as a form of self evaluation (2008: 243). While acknowledging the value of relying more closely on memory rather than recordings – developing

[139] Green's three categories of listening can be defined as follows: i) purposive listening is goal orientated, when something is learnt for a specific use after the listening experience; ii) attentive listening engages with the same level of attentiveness as purposive listening, but without any particular goals or uses of the material following the listening experience; and iii) distracted listening is when the 'music is being attended to on and off' – primarily as entertainment or enjoyment rather than specific learning (Green 2001: 23-4).

one's own strategies independently from the guru – my own experiences have significantly relied on practising using recordings and videos from lessons. Nagaraj in fact advocated the value of listening to recordings: 'Listening, listening, listening – it will do all the magic, all the tricks for you in Indian music'.[140] Although technology is not the focus for this chapter, it draws attention to some conflicting values in traditional teaching that will be discussed in more detail. In particular, the notion of *gurukula* learning as a slow and gradual 'process of enculturation' (Farrell 2001: 57; also comparable to Green's observations of popular musicians above) both with and without digital resources will inform my discussions in section 5.5.

My lessons – ranging from those that can be viewed as a traditional model, to those that challenge the guru-*shishya* conventions through a collaborative model (see case study 1) – lie in contrast to claims that 'the *gurukula* system collapsed around 1900 […] the *gurukula* system and ear and rote learning had been laid to rest long ago' (Rangaramanuja 1977: 10). While recordings, technology and the Internet have challenged the ways in which musical knowledge is imparted in India, as well as wider trends towards more institutionalised education and cultural moves away from classical traditions, the respect for and subservience to a guru is a fundamental ideology within musical education in India today, highlighting the significance of the Sanskrit terms guru and *shishya* as distinct from teacher and student.

[140] Violin lesson with Nagaraj, 7 January 2017.

5.2. Chennai, London and Mysore: studying with Karnatic violinists

I now turn to my own experiences studying with Karnatic violinists. The main sources of research are violin lessons with a number of different Karnatic teachers, framed by the overview of the guru-*shishya* relationship set out in the previous section. Table 5.1 outlines the lessons, teachers and other relevant information relating to my Karnatic violin studies.

Dates	**Location**	**Lesson details**	**Other details**
14 Feb – 16 Apr 2008	Kolkata	7 introductory lessons with Hindustani violinist Biswajit Roy Chowdhury: learning *sargam* notation system, playing position and basic *rāgas* (with no *gamakas*).	
6 Dec 2011 – 13 Jan 2012	Chennai	8 violin lessons with Karnatic violinist Embar Kannan learning basic *gamakas* and re-working the collaborative piece, *the bond between*.	Attending daily concerts in the December Music Season and observing teaching at *Bala Brundam Sangita Gurukulam*.
10 Dec 2015 – 17 Jan 2016	Mysore	3 violin lessons with Mysore Manjunath in Mysore.[141] 2 violin lessons with Sumanth Manjunath (Manjunath's son).	Interviews with the Mysore Brothers.
10 Dec 2015 – 17 Jan 2016	Chennai	4 lessons with Embar Kannan in Chennai.	Interviews with 6 violinists performing in the December Music Season and representing the major schools of violin playing in Chennai.
13 Dec 2016 – 17 Jan 2017	Mysore	22 violin lessons under the guidance of the Mysore Brothers: Mysore Manjunath (9 lessons)	Attending two concerts by the Mysore Brothers and other Karnatic

[141] The change of teacher came about due to severe flooding in Chennai, which meant that I could not travel there as planned.

		Mysore Nagaraj (9 lessons) Sumanth Manjunath[142] (2 lessons) Karthick Nagaraj (1 lesson) Sathwik[143] (1 lesson) Focusing on *gamakas* and two basic compositions. Improvising with a recording of my collaboration with Jasmin Rodgman.	classical concerts in Mysore. Performance as part of a fusion concert with Karnatic and Hindustani percussionists.
2012–2015 (occasional) 2015–2017 (more regular)	London	Violin lessons with Jyotsna Srikanth (from Bangalore), focussing on *rāga ālāpana,* basic compositions *(varnams)* and improvisation.	Interview with Jyotsna and attending her concerts in London (and Chennai, 2015).

Table 5.1. Details of Karnatic violin lessons, concerts and interviews.

I should point out that it is not common to have so many different teachers when learning music in India, as illustrated in section 5.1. Mysore Manjunath can be identified as my guru although I also had a significant number of lessons with other members of his family.

Drawing together the different experiences studying with Indian violinists, in Chennai, Kolkata, Mysore and London, provides a small-scale study of teaching methods in India, backed up by accounts from musicians who I have interviewed and those of other practitioners (including Shankar and Menuhin 1968; Slawek 2000; Farrell 2001; Weidman 2006, 2008; Henderson 2009; and Clarke, D. 2013). The consistent teaching methodology contrasts starkly with the teaching of the six main Western classical violin teachers with whom I have studied in the UK (all of whom trained at London conservatoires and three of whom are professors at the Royal Academy of Music). These include approaches that vary

[142] Sumanth and Karthick are the sons of Manjunath and Nagaraj, respectively, and have both been taught by Manjunath and Nagaraj as well as their grandfather.
[143] Sathwik is a student who studies with Manjunath. (His family name was not given.)

from historical and theoretical understandings of music, to a focus on the craft of the bow arm and left hand and those who place the creative intention and expression of music at the centre of teaching. While the timescale has been much longer than for my Karnatic lessons, a brief comparison offers insight into the uniformity of teaching methods in India, even when there are clearly defined differences in the *bānī* and technical craft of the violin.

For beginners, Karnatic music lessons begin with basic techniques, learning the *svaras,* then *talas* and some compositions. In some cases *shishyas* can spend up to four years working on just a couple of *rāgas* (Shankar and Menuhin 1968: 14). My experience with Karnatic violin lessons demonstrates a broadly standardised format.



Figure 5.1. A Karnatic violin lesson with Mysore Manjunath.[144]

The summary below traces the course of a typical violin lesson, as exemplified by all seven Karnatic violinists with whom I have studied:

1. Sitting down cross-legged on the floor with the guru and *shishya* facing each other, as shown in Figure 5.1, no explanation of the playing position is given unless requested. Some gurus ask what I would like to learn, in relation to my research.

[144] 30 December 2016.

2. The guru chooses a suitable *rāga.*
3. The guru plays the ascending *svaras* of the *rāga* leaving spaces for me to imitate, followed by the descending *svaras* to establish the framework of the *rāga.* These modes are first played without *gamakas,* then the *gamakas* are added.
4. The guru plays short phrases of improvised, un-metred *rāga alāpana* for imitation.
5. Learning a metred *varnam* (composition) one phrase at a time, each one played by the guru and imitated by the *shishya* until it is committed to memory.
6. More advanced lessons move onto improvisatory exchanges between the guru and *shishya*, played with a percussionist or electronic *tala* metre.

Lessons finish either when the guru has another commitment, or, if there are no time constraints, until it is apparent that the *shishya* has reached a limit with the chosen *rāga,* and is sent away to practise. It is worth noting that lessons rarely involve more than one *rāga* and, in my case, tended to last approximately one hour.

5.3. Ways of knowing

To borrow a question from Bruno Nettl: 'when music is transmitted, what is actually learned?' (1983: 324). Developing this question further, *how* do we learn to play music? Moving beyond an understanding of the specific musical elements of which Karnatic music is comprised (such as the *rāga* and *tala* systems), I will investigate the more implicit processes of learning in an oral

tradition, with a focus on the process and a performer-centred approach to knowledge that draws on the work of Neuman (1980), Green (2001) and others. My focus of enquiry narrows to address two examples of Karnatic lessons that, by virtue of their unconventional approach, shed light on different ways of learning. Case study 1 is a session with Karnatic violinist and teacher Jyotsna Srikanth where the aim was to create a collaborative composition. Following this, I discuss an experimental workshop implementing a new notation system with Karnatic musician Ramesh Vinayakam. Both examples can be seen as methods that present obstacles to traditional *gurukula* learning and obstruct the more gradual imparting of knowledge by imitation from guru to *shishya.* An understanding of different types of knowledge can highlight how these two examples engage with distinctively different processes. Although both examples offer unusual models in the context of Karnatic teaching at large, by throwing key differences into relief I aim to illustrate some of the implications for the ways in which we conceive new ideas in musical learning.

In light of the theories of knowledge set out in Chapter 1, it could be argued that the knowledge required to learn a musical instrument can be classified predominantly as procedural knowledge, whereas the declarative understanding of the physics of the instrument and the anatomical details of the arm movements are not fundamental to playing the instrument. Many aspects of personal knowledge are tacit and often inaccessible to musicians, providing potential challenges to the ways in which teachers impart information to students. While declarative knowledge tends to be explicit and 'consciously representable', procedural knowledge is manifested in performance in intricate

and implicit ways (Fantl 2017). Although this understanding underpins the physical playing of an instrument, it does not take into consideration the role that declarative knowledge of a musical tradition takes in informing the stylistic, cultural and many other components of musical performance. Consequently, musical performance can be seen as more of an entanglement of different types of knowledge than the rather starkly binary philosophical and psychological models seem to allow. The case studies that follow this section begin to illustrate how procedural and declarative knowledge can be independently recognised, but also simultaneously integrated.

Knowing music

Theories of procedural and declarative knowledge in skilled performance can be applied in a number of ways to my experiences of learning to play the Karnatic violin. Some teachers provide students with an analysis of the mechanics of what they are doing where verbal explanations lead the teaching process. The numbering of hand positions for the left hand in Western classical violin playing is one example of a verbal and psychological cue that is supposed to provide a systematic way of describing the placement of the left hand (first position, second, third etc.) and to help the violinist conceptualise the relationship between the hand position and pitch. (Whether such methods are an assistance or hindrance for violinists, lies outside my discussion.) Verbal explanations to aid the learning process can be seen as predominantly declarative in nature and are commonly present in Western classical music teaching. At the same time, the analytical approach that underpins Western classical teaching also involves breaking down physical movements into smaller actions in slow motion, which

are taught using a combination of demonstrations and verbal clarification. For example, violin teachers will normally demonstrate a shift from first to third position, accompanied by verbalising the numbered positions. While Western classical teaching can be seen as principally declarative in nature, there are also procedural elements that are fundamentally integrated into the process. In contrast, *gurukula* teaching arguably places the physical experience of playing the violin as the focal point for the *shishya* experience. This method of learning by doing can be understood as more procedural in nature.

In my own Karnatic lessons, I am aware of my own strategies and practice techniques for learning to imitate the guru. These strategies are part of an internal dialogue that is informed by my prior experiences of playing the violin, for example: mental assumptions, questions and analyses that jump ahead, or pre-empt, what might be possible on the instrument. When practising a single string exercise over the interval of an octave (as shown in **Video example 3.2**), my own strategies to achieve the desired effect include lightening the left hand contact with the string and playing with closed eyes rather than relying on a visual guide for the shifts. In this sense, an analytical strategy was developed in response to Manjunath's playing. My practice techniques, which emerged independently from any guidance, can in one sense be understood to be procedural in that these are methods for imitating an implicit skill and are not necessarily part of Karnatic violin playing. On the other hand, these strategies can be recognised as those that I conceived from my training in the Western classical tradition and perhaps interfere with the more gradual and

enculturating process of *gurukula* learning.[145] As an alternative approach, my understanding of more traditional imitative Karnatic teaching is that the body builds procedural knowledge through repetition. In a lesson with Nagaraj, he commented that 'without the knowledge, you will acquire the grip',[146] suggesting that Karnatic playing relies entirely on procedural knowledge – almost without thinking – to generate the touch that is necessary for violin-playing hands. Returning to the nature of imitative teaching provides insight into the relationship between procedural and declarative knowledge in imitative teaching. Clarke and Kini draw attention to the fact that this method for teaching is not a case of exact repetition, but rather, a 'rāga is taught through the cumulative production and ceaseless variation of phrases by the guru, imitated, and eventually also extemporized upon, by the *[shishya]*' (Clarke, D. and Kini 2012: 140). Although learning phrases that are continuously changing is, in my experience, a significant challenge, it is precisely this process that cultivates knowledge that is more procedural in nature – perhaps the 'grip' that Nagaraj refers to.

These observations invite further study and could be developed by questioning Karnatic musicians about what they are aiming to achieve during various points of their practice. However, having interviewed musicians and asked many questions with several teachers in Karnatic lessons, I have not been able to expose the more implicit nature of music teaching, learning or practice so far. For example, when asked about playing with a light left hand, Nagaraj did not

[145] See Green (2001: 130-2) for more on students transferring skills and knowledge from classical music tuition to the realm of popular music.
[146] Violin lesson with Nagaraj, 7 January 2017.

acknowledge this method or any other. With these examples in mind, it is closer to reality to view knowledge as a continuum between procedural and declarative processes, with Western classical teaching drawing on both forms of knowledge, and Karnatic lying closer to a procedural model. The *gurukula* model of teaching, which appears mainly procedural in nature, relies on the subservience of the *shishya* whose role is non-declarative. Perhaps an unquestioning *shishya* can be more receptive to the gradual emergence of procedural knowledge as a result of imitative learning than I experienced. Looking back, my previous ways of knowing often interfered with the Karnatic method, although I was not aware of this at the time: for example, the Western classical concept of fixed hand positions arguably interfered with the more fluid movements of the left hand that is integral to playing *gamakas* (as discussed in 4.3).

Earning the right to know

While my example of the single string exercise could be seen as engaging with tacit knowledge – that is, musical elements used by Nagaraj of which he is unaware (see Green 2001: 93) – it is also common for gurus to intentionally withhold the secrets of their craft. With this in mind, it is important to consider the cultural value behind transmitting knowledge in Indian[147] classical music.

The value placed on imparting knowledge in Indian classical music suggests an attitude to knowledge – both procedural and declarative – that is an Indian phenomenon. Widdess and Nooshin explain that '[t]he disciple owes the teacher

[147] I refer here to Indian classical music more broadly as the literature is predominantly based on Hindustani examples, while my own are from Karnatic music.

absolute loyalty in return for the teacher's trust in passing on the secrets of the arts' (2006: 5). Although tacit knowledge, trade secrets and teaching methodologies are generally not discussed in lessons in India, the work of Neuman (1980), which is based on his experiences learning the *sitar* in India, exposes some of the unspoken realities of the *gurukula* system. Neuman explains that 'there is a high premium on musical knowledge, and the more esoteric, the more it is valued' (1980: 53). The value of knowledge is partly seen as the responsibility of the guru within the broader context of his or her *bānī* and *gurukula*, which could account for the guru's resistance to providing explanations. Neuman elaborates further, by suggesting that 'a guru must not transmit his knowledge promiscuously. The transmission must be pure; that is, it must not be distorted so as to reflect negatively on himself' (Neuman 1980: 48). In addition, many *bānīs* have a reserve of 'secret *rāgs*'[148] (Neuman 1980: 52) that are only performed for certain musically educated audiences who are deemed worthy of understanding and appreciating them. These *rāgas,* along with other trade secrets, are only imparted to the *shishyas* who prove their commitment to both the art and the guru; they earn a right to the knowledge through their subservience and dedication.

If knowledge in the broadest sense has a particularly high value in the context of Indian classical music, how does this inform the ways of learning and knowing music? I would argue that the cultural value of knowledge can lay the groundwork for a more socially orientated understanding of how ways of

[148] Note that Neuman's terminologies are based on those used in North India so include spellings that are inconsistent with other examples.

knowing are cultivated and transmitted. The responsibility of both guru and *shishya* within a *bānī,* as well as the *shishya's* reliance on their guru's reputation (see Neuman 1980: 31), also points towards a shared resource of knowing. Looking at Indian culture more broadly, the reverence for *Saraswati*, the Goddess of knowledge, learning, wisdom and the arts (whose image is often present in teaching rooms, including Manjunath's), suggests a more holistic approach to knowledge and learning than the theoretical categories above can allow for. This is apparent in Sunandan's article that suggests that 'knowledge is not located in the divided domains of material and spiritual' (2015: 176). Hinduism places significant emphasis on ways of knowing – known as *pramana* – where theories of knowledge, or epistemology, are intrinsic to traditional Hindu education (Reagan 2018: 205). In particular, theologians and philosophers recognise six different methods of knowing in Hinduism that broadly translate to: sense perception, inference, authority, analogy, hypothetical supposition and negation (Reagan 2018: 205-6). Further insight can be gleaned from looking at the concept of knowledge in relation to the arts:

> According to the orthodox Hindu concept of knowledge, […] innovation in a domain such as art-music is technically impossible: all knowledge was promulgated by Brahmā at the beginning of time, and no mere mortal could possibly add to it. At the most, knowledge that has been forgotten can be re-discovered. (Widdess 1993: 47)

Re-discovering knowledge is closely bound up with spiritual devotion and development, drawing a parallel with earning the right to the trade secrets of a guru, while at the same time endorsing the god-like status of the guru.

While my own experiences with Karnatic music do not directly engage with spirituality, perhaps the concept of innovation and knowledge set out above can

inform the ways of teaching and subservience to the guru that I experienced with Karnatic violin teachers. In particular, the significance of epistemology within the Hindu faith and the focus on the 'spiritual growth and development of the individual, rather than on any particular goal or objective' (Reagan 2018: 206-7) sheds light on the predominantly non-declarative teaching methods. In his discussion of the limitations of the individual mind, Mookerji explains that '[w]hen the mind is withdrawn from the world of matter, and does not engage in individuation, Omniscience, the Knowledge of the Whole, dawns on it' (1960: xxiii-xxiv). Could this non-compartmentalised perception of knowledge provide a vantage point for examining *gurukula* teaching? Rather than trying to conceptualise how to play a specific *gamaka* in a Karnatic violin lesson, what can be gained from repeatedly imitating a phrase of a *rāga* without a particular goal in mind? The focus of *gurukula* teaching may 'not be on the acquisition of bits of knowledge or on 'objective knowledge', but rather on the knowledge of the totality of the universe' (Reagan 2018: 207).

I return to Nagaraj's instruction that 'without the knowledge, you will acquire the grip'[149] and suggest a possible insight into my experiences of imitative learning. The reliance on procedural learning by doing (playing) and listening[150] demands a move away from the more objective approach that I was (perhaps wrongly) searching for by asking technical questions from my gurus, such as 'can you explain how certain *gamakas* are used for particular *svaras*?'[151] Instead, Nagaraj's suggestion that the knowledge that I was seeking was not necessary

[149] Violin lesson with Nagaraj, 7 January 2017.
[150] See the quote from Nagaraj in section 5.1.
[151] Violin lesson with Manjunath, 6 January 2017.

places the emphasis on learning through the felt experience. The understandings of knowledge that I have explored here will inevitably inform my future lessons with Karnatic teachers, where the value of the teaching method arguably becomes more apparent as I am able to move away from the more declarative approach of the Western classical tradition. This is not to suggest that being subservient and not questioning the guru is a passive position, but rather that the totality of playing and listening requires an active engagement with the experience of the music, instrument, people and culture.

5.4. Case study 1: *Rāga Abhogi* (2017) with Jyotsna Srikanth

I now turn to an experimental session with a Karnatic violin teacher that combines a traditional *gurukula* process with a collaborative model. My aim for this lesson was to introduce the concept of collaboration with my London-based Karnatic guru, Jyotsna Srikanth, as the first stage of my investigation into Karnatic violin techniques in collaborative practice. It is worth noting here that Jyotsna's experience comprises a broad range of collaborative models, including: working with Karnatic and Hindustani classical musicians in what is known in India as a *jugalbandi* (a term that can refer to inter- and intra-cultural fusion concerts that are not limited to the parameters of the classical musics, but are broadly based on the classical traditions); projects with jazz and folk musicians including Swedish and Norwegian fiddlers; and with Western classical musicians including the London Philharmonic Orchestra. With this extensive experience of working with different people, traditions and formats in mind, I asked Jyotsna

whether she and I could collaborate to 'make up a new piece together',[152] without intending to adhere to any specific musical style. The collaboration with Jyotsna supports the points made so far about teaching methodologies, while acting as a platform for experimenting with potential disruptions to the traditional guru-*shishya* model. I conclude by questioning the effectiveness of the collaboration, assessing the failures in the collaborative process and simultaneously valuing the insights into the guru-*shishya* relationship that became evident.

A background to the collaboration

This collaboration was set up to explore a teacher-student collaborative model in relation to the composer-performer, group and co-authored models that make up the content of the rest of the thesis. Unlike the other case studies that are all part of performance projects independent of my research, this one with Jyotsna was purely experimental without the time constraints or goal of a public performance. My aim was to introduce creative collaboration into a traditional Karnatic teaching environment and to record the impact of a different working model on the dynamics between and creative involvement of both teacher and student. It is worth noting that I do not consider myself as a *shishya* in these lessons with Jyotsna, as my role identifies more closely with that of a student; lessons were scheduled in advance, paid for and delivered within a specified time frame, unlike in traditional *gurukula* teaching.

[152] Violin lesson with Jyotsna, 4 May 2017.

The collaboration with Jyotsna took place within a lesson format in Jyotsna's London home. There were three collaborative sessions lasting approximately one hour each, spread across six months in 2017. The resulting piece consists of a repeating melody that is composed and played by Jyotsna Srikanth (**Audio example 5.1**), followed by improvisations that alternate between two violinists, returning to the melody to finish. The three sessions can be summarised as follows:

- 4 May 2017: composing and teaching/learning the melody,
- 14 August 2017: practising the melody and basic improvisation call and response,
- 14 November 2017: practising improvising in call and response phrases of varying duration, known as *korappu*.

The piece, *Rāga Abhogi*, is approximately five minutes in duration, depending on the length of the improvisations, and currently exists as a recording made during a lesson. There have not been any performances or professional recordings of our collaboration.

Following some general conversation, Jyotsna began by asking me which *rāga* I would like to use, immediately setting a Karnatic framework for the tonality of the piece. She emphasised that we should choose a *rāga* that I was comfortable with, so we decided on the pentatonic *Abhogi* which I had worked on in my lessons in Mysore earlier in the year. This conversation lasted less than a minute, at which point Jyotsna picked up her violin and suggested 'we'll do some

ālap to get the hang of it [*Rāga Abhogi*]',[153] and began by playing the pentatonic ascending and descending *svaras* of *Abhogi,* followed by short, un-metred phrases for 13 minutes. Although there was no verbal agreement that we were playing within the framework of the Karnatic tradition, another brief discussion established that we would play in a 6-beat time cycle: *Roopaka Talam*. I asked: 'if we were going to make up a piece, a fusion[154] piece where we're both playing in different styles, how would you do that?'[155] Jyotsna responded by beginning to sing and compose the melody that forms a composition that can be identified as a Karnatic classical piece (**Audio example 5.1**).

Looking at the structure of the session and the ways in which the roles of teacher and student played out, this session follows the progression of a typical Karnatic lesson, as set out in stages 1 to 4 in section 5.2, with Jyotsna playing phrases for me to imitate. Having listened to several of Jyotsna's previous collaborative projects, I anticipated that we would create a piece of music together with obvious links to the Karnatic tradition as well as drawing on styles and traditions introduced by both of us. The concept of collaboration was introduced to potentially shift the traditional teacher-student relationship by inviting a more flexible approach to the creative process.

Disrupting the guru-shishya paramparā

With the established roles and hierarchies of traditional Karnatic teaching in mind, my attempt to collaborate with a teacher challenges the tradition and was

[153] Violin lesson with Jyotsna, 4 May 2017.
[154] The word 'fusion' is used here as a reference to the genre of music found in India with which Jyotsna is familiar.
[155] Violin lesson with Jyotsna, 4 May 2017.

potentially only possible within a London context (rather than in India). In particular, I attempted to confront the conventions of the musical and teaching systems, by asking questions that I had not previously raised in lessons. Although my input could be seen as disrespectful to the Karnatic tradition and Jyotsna's teaching due to my move away from being a subservient *shishya,* Jyotsna did not voice any concern and the way in which the collaboration played out in the end confirmed her role as my guru. One request was for the *rāga* to change within the piece, breaking the rules of the traditional Karnatic model that always remains in a single *rāga*.[156] Jyotsna did not respond to this suggestion or incorporate it into the piece (just as my Karnatic teachers in India did not answer my technical queries), which made me more cautious about disrupting her initiatives and the relatively fixed Karnatic structure. Throughout this process Jyotsna made the creative decisions and worked within the parameters of Karnatic classical music, maintaining her position as the guru whose decisions were typically authoritative and not explained or justified. Having attempted to disrupt and challenge the traditional guru-*shishya paramparā*, the roles of teacher and student were re-established.

Collaboration?

The case study of *Rāga Abhogi* with Jyotsna informs my earlier discussions about the historical and cultural significance behind the guru-*shishya* tradition, confirming that traditional teaching methods are deeply embedded and established in India. In particular, this can be illustrated by examining questions

[156] The term *svara bheda* refers to a modulation created by changing the pitch of *Sa* (the tonic) in Indian classical music, but is rarely used (Shankar and Harrison 1999: 322).

of authorship within the collaboration. The composed elements of the piece (known as the *pallavi* and *anupallavi*) were created by Jyotsna and follow the same format as previous lessons. Jyotsna explained: 'see, when it comes to Indian music, I can compose something with the *pallavi* [and the] *anupallavi* which we'll play together, then we'll have a groove and we'll have to improvise around it. That's the way we do it'.[157] The dialogue and musical material both indicate that Jyotsna is the author of the music and cast doubt on whether this session playing *Rāga Abhogi* can really be identified as collaborative in comparison to a regular lesson.

The points of disruption, with my suggestions to move away from a traditional Karnatic format, can be viewed as an attempt at collaboration – however successful or unsuccessful. My evaluation of the success of the collaboration is based on the creative input by both collaborators; but this may be an approach that fails to recognise the finer details of the learning process. On one hand, Jyotsna's comments in the quote above expose the relatively fixed nature of Karnatic classical music and indicate some of the ramifications of training in an oral musical tradition. While Jyotsna frequently collaborates with musicians from varying musical traditions, she rarely deviates from a Karnatic style herself. On the other hand, while learning by imitation in the Karnatic tradition is closely linked to the apparent subservience of the student, the creative process of imitative learning is not necessarily a passive experience. As my discussion about procedural knowledge has shown, the art of learning inevitably invites a creative approach to some extent as a way of unlocking secret and unconscious

[157] Violin lesson with Jyotsna, 4 May 2017.

ways of knowing. In addition, musicians from oral traditions argue that the act of imitating and memorising music in fact provides a point of departure for creative expression and improvisation (Nettl 1983: 326).

As a platform for experimentation, the collaboration with Jyotsna exposed significant elements of *gurukula* teaching that were not as apparent prior to these sessions, particularly the extent to which the guru-*shishya* method for teaching is integral to Karnatic music as well as broader cultural practices. While the collaborative process failed to move away from a Karnatic model, a collaborative framework can instead reveal the extent to which a musician's cultural background can determine the intricacies of transmitting knowledge. Although *Rāga Abhogi* can be identified as a collaboration in the broadest sense of the word, the failure to move away from the roles of guru and *shishya* resulted in a creatively unequal process. Jyotsna's creative leadership suggests two possible readings: first a disengagement with the concept behind the exercise, which seems unlikely given her verbal agreement to participate; or second, a disconnection between our ways of knowing, which did not reach a common method. The psychological models of ways of knowing can offer reflection on the potential tensions – as well as insights – that emerge from collaborative practice that draws two different musical traditions together.

5.5. A process of enculturation

Incorporating theoretical modes of knowledge from psychology with the more integrative learning processes in Karnatic music, how might we understand my attempts to collaborate with Jyotsna? Clarke, Dibben and Pitts suggest that

> Although approaches to instrumental teaching are culturally specific, the notion of an apprentice receiving tuition from an expert is found across a wide range of cultural contexts. Sometimes this process is relatively indirect and might be better described as 'enculturation', with the learner picking up instrumental skills from more proficient players in a relatively haphazard and opportunistic manner. (2010: 158)

The method of teaching Indian classical music can often appear rather unpredictable, particularly when lessons are not a regular or scheduled commitment. Although based on an overarching tradition, lessons rely on a degree of flexibility and the guru's authoritative, and at times secretive, approach can be seen as haphazard. My own experiences relied on opportunities that correspond to the observations from Clarke et al. (2010): teaching was often outsourced to more advanced *shishyas* and a lesson with the guru sought after at every possible opportunity. Enacting such methods and ways of being preserved the role and prestige of the guru, as well as the tradition.

Several authors and practitioners including Neuman (1980) and Nettl (1983) and Farrell (2001) draw on an understanding of the relatively slow process of *gurukula* teaching as 'a process of enculturation' (Farrell 2001: 57). Enculturation refers to the 'process of learning a culture in all its uniqueness and particularity' (Poole 1994: 831). In relation to music, Green explains how

> The concept of musical enculturation refers to the acquisition of musical skills and knowledge by immersion in the everyday music and musical practices of one's social context. Almost everyone in any social context is musically enculturated. It cannot be avoided because we cannot shut our ears, and we therefore come into contact with the music that is around us, not only by choice but by default. (2001: 22)

While Green's notion of enculturation offers insights for musical learning, the focus on everyday musical experiences does not recognise the ways in which musical practices can be tied up in broader musical and cultural traditions. The

notion of cultural immersion closely supports the process of Karnatic teaching using 'non-verbal "theory"' (Silver and Burghardt 1976: 50) that demands the 'slow but meaningful progress' that Shankar endorses (Shankar and Menuhin 1968: 15). Given the extent to which *gurukula* teaching relies on the transference of ways of knowing that are not explicitly available to the *shishya,* a process of enculturation can reveal some of the ways in which the Karnatic *shishya* engages with cultural practices as a way of negotiating the music and instrument.

Referring back to the understanding of the guru from the beginning of the chapter, Nettl comments on how the role of the guru relates to an understanding of broader cultural practices: 'The term "guru" symbolizes the teacher's role in moulding not only the student's musical learning but also his adoption of an appropriate lifestyle, his absorption of music as a part of culture' (1983: 330). If we are going to understand learning processes in an oral tradition, a social perspective can shed light on the relationship of responsibility between the guru and *shishya.* Becoming musically enculturated in Karnatic classical music is seen as the point at which a musician reaches maturity and can carry the responsibility of the tradition on behalf of the guru, the *bānī* and classical music at large. But this point is not reached until 'the guru enculturates the shishya into musical life […] This total musical life provides important evidence that social relations between musicians are indeed systematic' (Neuman 1980: 50). Neuman's emphasis on the social perspective supports my preference for using psychological definitions of knowledge that are orientated towards people in

specific cultural contexts as a framework for examining musical learning, as opposed to more abstractly theoretical philosophical models.

How does the concept of enculturation expand on the theories of procedural and declarative knowledge? Having established that musical learning in both Karnatic and Western classical violin teaching resides in a permeable space between procedural and declarative ways of knowing, enculturation offers an arguably more ramified and blurred perspective on personal knowledge that is rooted in cultural context. While Green draws a distinction between enculturation and more formal ways of learning music (2001: 132), the collaborative example with Jyotsna perhaps suggests a closer relationship. On the one hand, collaboration can exist without formal and fixed patterns of behaviour and musical structures, but on the other hand, the *gurukula* system can be viewed as both an enculturating process and a systematic and formal approach to musical tuition based on rigorously established methodologies. The process of enculturation in Karnatic violin lessons can begin to reveal the nature of the immersive teaching practice as well as some of the ways of knowing that I am currently unaware of as a *shishya*, but which are essential to the task of learning. While the ephemeral and inaccessible quality of enculturation presents a challenge for the practitioner and researcher, practice-led research can begin to extrapolate some of the more implicit behaviours that I was not aware of at the time. As a point of contrast to traditional *gurukula* teaching, I now briefly turn to some sessions learning to play *gamakas* in what can be defined as an unconventional and contemporary system for learning Karnatic music, in which declarative knowledge plays a more prominent role than is customarily the case.

5.6. Case study 2: Gamaka Box notation

The Karnatic musician Ramesh Vinayakam has developed a method for notating Karnatic *gamakas* in a system known as Gamaka Box. It is currently at an experimental stage and is one example of an attempt being made to use an alternative method for learning Karnatic *gamakas.* Ramesh Vinayakam claims that Gamaka Box notation offers musicians who do not have previous experience of playing Karnatic music the tools to be able to play *gamakas* in relatively little time. Consequently, learning to play *gamakas* using the Gamaka Box notation can take place away from the cultural and social context that is integral to Karnatic music and instead offers a different way of learning. By comparison, *gurukula* teaching only incorporates *gamakas* when a *shishya* can convincingly play fixed *svaras* on their instrument, often after several years of lessons.

Whilst notation is an effective method of preserving music, it has always been a controversial issue in relation to the oral traditions in India. Some musicians support the development of notation systems while others argue that the preservation of Indian music depends on the absence of writing. Weidman discusses the notion that it is not possible to notate Indian music, and that to do so would be a case of 'reducing music to notation' (2006: 202). Others argue in favour of notation, but use a system devised purely for Indian classical music rather than using a notation taken from another musical genre, as expressed by the nineteenth century poet and composer Rabindranath Tagore in his argument against using Western staff notation in 1874:

> Every nation that has a music of its own has also its own system of notation for writing it. Whether that system be an advanced one or not, it cannot be correctly expressed in the notation of another nation, however improved and scientific it may be […] (Tagore 1874, cited in Weidman 2006: 203)

Sargam[158] notation is used by Karnatic musicians, but only as a basic resource, which people acknowledge does not capture the intricacies of the music. Neither Western notation nor Indian *sargam* notation can clearly depict the complexities of microtonal emphasis or *gamakas;* but more fundamentally:

> how could one convey the concept of *rāga* itself? […] the very idea of "notes" as implied by the [Western] staff notation, was considerably different from the Indian term *swara,* which conveys not so much a note as a kind of placeholder that might in actuality include several notes. (Anon. 1887, cited in Weidman 2006: 203, 212)

Working with Ramesh Vinayakam, I learned the Gamaka Box system within thirty minutes, and on this basis was able to go on to play *gamakas* with greater ease than I had anticipated. Figure 5.2, demonstrated in **Audio example 5.2**, illustrates how the Gamaka Box uses a straight line to indicate a quick glide, curved line for a slow glide and symbols for slow and fast vibrato.

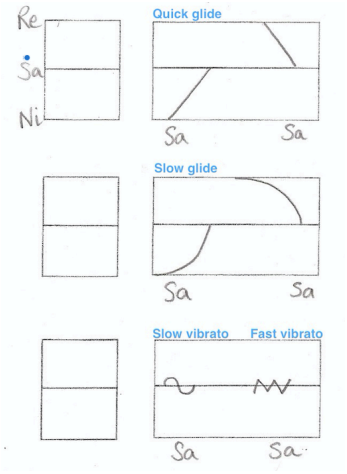


Figure 5.2. Gamaka Box notation: basic symbols.

[158] See glossary.

Following an outline of these basic symbols, Ramesh taught me to play some *gamakas* in *Rāga Todi* using Gamaka Box notation; **Video example 5.1** illustrates an extract from this session. At 0:08 in **Video example 5.1**, Ramesh explains how students do not normally play *Rāga Todi* in their second lesson, which he believes is possible by providing Gamaka Box notation to musicians who have a notation-based musical training. Furthermore, at 0:39, he gives a brief explanation for the notation, outlining the arm movement as 'very, very quick' in relation to pitches 'G to F natural'[159] (*Ma* to *Ga*), which results in a rendition at 1:04 that creates the desired *gamaka,* based on the Gamaka Box notation in Figure 5.3.

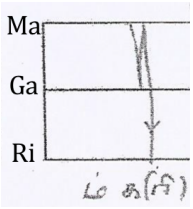


Figure 5.3. Gamaka Box notation: *Rāga Todi, gamaka* on *Ga.*
(This example uses the *svaras* from *Rāga Todi* with *Sa* as D.)

However, it is important to recognise that my prior notation-based training and the fact that I had heard and learned the same *gamakas* in traditional Karnatic violin lessons that were taking place in parallel to the Gamaka Box experiment influenced this relatively fast acquisition. My response to the Gamaka Box inevitably draws on both experiences. On reflection, there are several possible points to consider in reviewing the effectiveness – and perhaps authenticity – of Gamaka Box notation. First, while I was able to execute the *gamakas* more effectively than any I had attempted in my violin lessons, the act of reading a

[159] Ramesh began the session referring to Western classical note names as he assumed that I was unfamiliar with the *Sargam* syllables, but later switched to the *Sargam* system that is used for Karnatic music.

notation creates an ornament that is a fixed entity, and does not capture the fluidity of Karnatic music, as described by Tagore in the quote above and others in Chapter 3. Second, these *gamakas* were played in isolation with no understanding of the context in which they might be used, or how they might be altered and adapted for different meanings and *rāgas.* And third, the reliance on a visual cue – notation – did not allow for the felt experience to the same extent as the imitative learning. Referring to Tagore's quote above, the ingrained nature of notation – or the lack of it – within music education can reflect on learning processes at large, which are also closely bound up in cultural practices and ways of knowing outlined in section 5.3.

Gamaka Box as a method for learning Karnatic music can be viewed as an instructional approach that challenges traditional ways of learning in India. The lack of engagement with immersive and self-guided strategies that emerge from an oral and non-instructional teaching practice could be viewed as a more passive way of interacting with the musical tradition. Consequently, I have not utilised the Gamaka Box *gamakas* in the same way as those developed through imitative methods in my lessons with Karnatic gurus. Gamaka Box can be seen as a technology for speeding up ways of playing Karnatic music, but my experiences reveal how this method lacks the emergence of the long term absorption of the music and the culture. Just as my attempt to collaborate with Jyotsna disrupted the traditional mode of teaching, Gamaka Box notation results in a loss of face-to-face teaching and a 'speeding up of time' that is comparable to the impact of digital technologies (Weidman 2003: 454). Having drawn attention to some of the inflexible and rigid practices of the guru-*shishya*

relationship in the example of *Rāga Abhogi,* Gamaka Box provides a counter example. It is relatively flexible in terms of the teaching method and roles (there was a clear verbal exchange), but does not imbue a sense of understanding, knowing or experiencing the musical tradition and culture of Karnatic music. Approaches such as Gamaka Box provide a shortcut to playing isolated techniques that have little or no context and, in my experience, do not become part of a toolbox of techniques in the same way as those developed through the more gradual – and ideally enculturated – process of imitative teaching.

5.7. Conclusions

Learning the violin involves complex relationships between different ways of knowing, as examined in relation to two arguably unsuccessful but instructive experiences that have challenged the traditional *gurukula* model: first, my collaboration with Jyotsna; and second, Gamaka Box notation. While the Gamaka Box notation is not significant within the context of Karnatic classical music as a whole in the twenty-first century, it offers an example of a method that can be considered to be culturally dissonant. The immediate results following my session with Gamaka Box notation were a relatively quick acquisition of the *gamakas*, but the method has not had a long-term impact on my Karnatic playing. Instead, the significance of this experience lies in its contrast with imitative *gurukula* teaching, namely the valuable process of the *shishya* building strategies through imitating the guru.

Although the case study with Jyotsna is a rather unconventional exercise for a Karnatic violin lesson, it has shone light on the value of imitative teaching, which

emerges gradually through repetition and is a learning experience primarily directed by the felt experience in the body. The failure to establish a collaborative working relationship with Jyotsna that was different from a teacher-student model highlights how ways of knowing can be transferred in different ways across different cultural traditions. Taking into account the rigidity of the roles and cultural responsibility of the guru and *shishya,* my experiments in trying to collaborate with Jyotsna draw attention to these differences in ways of knowing and the challenges that are faced when working with musicians who rely on different patterns of procedural and declarative knowledge. More broadly, the apparent failure to move away from the teacher-student model can partly be understood in light of the reliance of the Karnatic tradition on procedural knowledge through imitation and non-verbal practices, as well as a highly valued cultural and spiritual attitude towards knowledge. Given that I had not reached a point that could be considered to be properly enculturated in the Karnatic tradition, this collaborative exercise reveals the implicit nature of the *gurukula* tradition. In addition, the key differences in transferring ways of knowing in a collaborative environment proved to be a point of resistance that prevented us from reaching a space that could enable a proper exchange of ideas. Instead, Jyotsna embodied the role of the Karnatic guru, stating 'that's the way <u>we</u> do it' (emphasis added).[160] Here Jyotsna implies a belonging within and responsibility to the wider cultural tradition of Karnatic music; emphasised by referring to the plural 'we' in the quote above. In light of these understandings, the collaboration with Jyotsna can be viewed as a

[160] Violin lesson with Jyotsna, 4 May 2017.

significant challenge to the tradition of *gurukula* teaching – and one that I had not anticipated.

My experiences studying with Karnatic gurus have demonstrated how the psychological processes that are fundamental to learning are embedded within cultural concepts of knowledge and notions of enculturation. The concept of enculturation is made possible by the dedication and deeply embedded traditions of the roles of, and relationship between, guru and *shishya.* The total reliance on the guru within an oral tradition cultivates a particular kind of knowing that is entirely based on the playing and behaviours of one musician where eventually 'the disciple understands the mind as well as the movements of the teacher' (Ghulām Husain Khān, cited in Cormack and Skagen 1972: 181). Ultimately, traditional Karnatic teaching fosters a relationship where guru and *shishya* represent each other (Neuman 1980: 47), but where the responsibility to and legacy of the broader tradition provides a more realistic framework for understanding how ways of knowing are developed.

Gurukula teaching seems 'to embody an authentically Indian mode of disseminating and acquiring musical knowledge' (Weidman 2008: 227); although many authors and practitioners refer to the *gurukula* tradition as a unique example of teaching practice, the question of how knowledge is actually imparted – or what the authentic Indian mode is – is not addressed. Drawing on theories of knowledge has drawn attention to the extent to which ways of knowing are deeply embedded cultural phenomena, as demonstrated in *gurukula* teaching. But, as the examples from traditional teaching in India reveal,

ways of knowing are a more complex system than a binary distinction between procedural and declarative permits and instead draw on both types of personal knowledge along with broader cultural ways of being. I conclude with Nettl's proposal that the processes of learning a culture and its music can be viewed as more complementary and collaborative – a concept that highlights the significance of ways of knowing in all music making and will later inform an understanding of my London-based case studies:

> Perhaps music has somewhat of the enculturative function everywhere, but if we have recognized the importance of music in the learning of a culture, we have not paid much attention to the way in which people learn music, and surely not to the ways in which the elements and values of a culture affect the learning of music. (1983: 323)

Chapter 6

Improvisation as the 'bedrock of musical creativity' in composer-performer collaborations

> [M]usical improvisation is, to many in the Western world, an activity shrouded in mystery. (Ashley 2008: 413)

Richard Ashley's opening statement from his article on improvisation exposes a perspective in sharp contrast to that illustrated by T. Viswanathan and Jody Cormack on the melodic improvisations found in South India, in which they state that 'for [Karnatic musicians] there is no mystery involved – this is a skill that is learned over many years' (1998: 231). In this chapter I argue that improvisation can be demystified by supporting the view that a ritualised practice of improvisation can be a site for observing different ways of knowing and how they emerge in creative collaboration.

Observing Karnatic violin techniques in improvisatory processes can be a locus for investigating the blurring and shifting roles between composer and performer in collaborative practice. As Fabrice Fitch and Neil Heyde reveal, in their article examining their own composer-performer collaboration, the improvisatory quality of collaborative working methods provides a more open-ended platform for the compositional process, which in turn can be used to locate the creative process (2007: 73, 94). My research aims to open up an understanding of creative and improvisatory processes from a performer's perspective, by examining the incorporation of Karnatic violin techniques in my own practice as a violinist working with composers in London. I ask: what can the incorporation of Karnatic violin techniques reveal about the improvisatory

and creative processes between composer and performer in collaboration? And, how does the relationship between personal and shared knowledge develop through improvisatory processes?

This chapter discusses the creative process involved in composer-performer collaborations in two pieces for solo violin and loop pedals: *the bond between* with Robert (Rob) Szymanek, and *Recitations* with Jasmin Kent Rodgman. Both collaborations were inspired by and incorporate Karnatic classical violin techniques and *gamakas*. Three versions of *the bond between* are discussed, each demonstrating a different distribution of authorship among the participants and drawing upon the involvement and improvisations of additional musicians, such as a Karnatic violin teacher, who might conventionally be regarded as outside the primary creative process. The result is a shift of emphasis away from the original composer-performer collaboration, exposing an entangled creative space from which subsequent versions of the piece emerged. *Recitations* comprises two movements, each of which presents a different approach to improvisatory processes and Karnatic violin techniques in the creative process. I explore the ways in which the juxtaposition of two contrasting models of collaborative practice within a single piece shape, disrupt and blur the boundaries between composer and performer.

Through examining these case studies, two main categories have emerged within which to discuss changing aspects of improvisation and creativity: a shift of emphasis in the distribution of creativity; and collaborative emergence, which both become increasingly more apparent in improvisatory exchanges. In

considering these and other perspectives, this chapter addresses some of the varying degrees of authorial involvement and distributed creativity through improvisation in a practical context. It highlights the fact that while creative collaboration has become a prominent topic in recent research, collaborations involving cultural exchange are still relatively unexplored.

6.1. An integrated perspective on improvisation

> Improvisation enjoys the curious distinction of being the most widely practised of all musical activities and the least acknowledged and understood. (Bailey 1992: ix)

Having identified the problematic and misleading nature of the term improvisation, this section provides a brief critique on a number of authors' perspectives and sets out an understanding for how I refer to improvisatory processes in the case studies that follow.[161] Paul Berliner describes how many misconceptions surrounding the notion of improvisation have developed around uncritical conventional definitions:

> the popular conception of improvisation as "performance without previous preparation" is fundamentally misleading. There is, in fact, a lifetime of preparation and knowledge behind every idea that an improviser performs. (1994: 17)

Two significant problems are apparent when using a single term for improvisatory practices in music: first, a Western-centric approach that tends to juxtapose Western classical music with jazz as a reference point for understanding (or misunderstanding) improvisation; and second, the segregation between discourses on improvisation, composition and

[161] A number of authors have written about improvisation from multiple perspectives including psychological (Sawyer 2003b), philosophical (Goehr 2014), ethnomusicological (Nettl 1974, 1998; Nooshin 2003, 2017; and others) and from social aesthetics (Schutz 1964; Born et al. 2017).

performance.[162] There have been many attempts in recent scholarship to re-define improvisation with subcategories, which help to recognise some of the more intricate creative processes, but fail to acknowledge the more integrated and fundamental role that improvisation plays in all music making.[163]

More than 40 years ago, Bruno Nettl (1974) identified how improvisation and composition have become separate disciplines in the Western classical music tradition and suggested that the two instead engage the same processes as part of a continuum. Nettl highlighted a set of common assumptions, which polarises improvisation from composition:

> Improvisation and composition are opposed concepts, we are told[164] – the one spontaneous, the other calculated; the one primitive, the other sophisticated; the one natural, the other artificial. (1974: 4)

Nicholas Cook comments on this binary vision of music making by pointing out how music is often divided into the educated musician versus the layperson; musically literate versus aurally trained; and score-based music versus aural or oral traditions (2007: 323). Laudan Nooshin uses the case of Iranian classical music to demonstrate that, since the 1980s, scholars have moved away from the

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[162] Nooshin discusses the case of Iranian classical music where the term for improvisation (*bedāheh-navāzi*) came into use in the twentieth century – partly as a result of the movement of musicians between Iran and Europe (2017: 218-9).

[163] Examples include subcategories set out by the following four scholars:

Derek Bailey (1992: xi-xii):

1. *Idiomatic*: Improvisation within an idiomatic style, such as jazz or Karnatic classical.
2. *Non-idiomatic*: Improvisation that does not represent an idiomatic identity, i.e. free.

Lydia Goehr (2014: 2):

1. *Extempore:* Musicians making up music and decisions in performance.
2. *Impromptu:* Decisions based on an 'unexpected difficulty or obstacle', such as a broken string.

Keith Sawyer (2003b: 138-9):

1. *Ritualized:* The 'pre-existing bits or ready-mades' of improvisations, such as jazz licks.
2. *Improvised:* In-the-moment decisions.

R. Anderson Sutton (1998: 87):

1. Improvisation to create new material.
2. Improvisation in performance.

[164] A statement based on Ferrand and others (at cited by Nettl 1974: 4).

notion of improvisation as 'a spontaneous whim' to a concept of improvisation as a highly organised and established technique for composition (2003: 252). In criticism of the many dualisms found in musical discourse, Nooshin suggests that the 'essentializing of improvisation – treating it as one particular kind of music which is somehow distinct from composition – is problematic' (2003: 253). She explains how musical features that have been used to define improvisation tend to be difficult to measure, such as 'true spontaneity', which cannot be calculated and is not necessarily achievable by a trained musician (Nooshin 2003: 253).

Looking more closely at the misconceived polarity between improvisation and composition Nettl draws attention to the creative process of a few nineteenth-century composers:

> the fact that Schubert wrote down certain of his works rapidly […] without working and reworking them very much, could lead us to regard his musical thinking as basically improvisatory. (1974: 10-11)

Viewing composition, such as Schubert's, as improvisatory implies that improvisation can also be compositional, and suggests that the two disciplines draw on the same skills as opposed to being separate processes. At the same time, there is a growing recognition of the significance of improvisatory processes in all musical performance practices. With jazz improvisation as a common focus for discourse on improvisation, Keith Sawyer identifies the process of using 'pre-existing bits or ready-mades' in improvisation as 'ritualized' practice, which he argues reduces the creative input of the performer (2003b: 139). Sawyer's concept of 'ritualized' practice illuminates the use of fixed material within jazz improvisation, but the polarisation between improvised and composed music fails to recognise the multiple degrees of

'ritualized' practice and ways of knowing that contribute to a performer's improvisation.

In addition, Sawyer's work does not access the creative possibilities of notation and fixed composition – or indeed when notation is used in combination with improvisation. In his writing about score-based Western classical ensembles, Sawyer describes how orchestral musicians intentionally aim to conceal musical communication from the audience, so as to give the impression that they are following the composer's intentions (and conductor in the case of an orchestra) in the moment (2005: 47). In Sawyer's opinion, improvisation only occurs in an orchestral ensemble when a musician 'makes a mistake, playing a wrong note or losing the tempo of the piece', therefore making a distinction between improvisational performance and scored performance (2005: 48). My foregrounding of an integrated understanding of improvisation draws on a more social-psychological perspective as set out by Cook (2007, 2013a) and others and challenges the ways in which Sawyer treats improvisation as a process that is separate from composition and interpretation. Instead, a cross-genre approach recognises that musicians who identify as improvisers 'always have a point of departure, something which they use to improvise' (Nettl 1998: 15); and that the 'ability to refresh and respond to ongoing events', such as staying in time and in tune with one another in a string quartet, is 'making music together' in the same interactive manner as improvising jazz musicians (Cook 2007: 330).

Proposing an understanding of 'music as performance' as well as performance as improvisation (Cook 2007: 321, 326), Cook's work draws on the following

statement from sociologist Alfred Schutz as a point of departure: '[t]here is no difference in principle between the performance of a string quartet and the improvisations at a jam session of accomplished jazz players' (Schutz 1964: 177). Schutz's, and subsequently Cook's, perspective offers a move away from the more reductionist approaches that seek to demarcate different improvisatory processes; for example Ingrid Monson's claim that jazz improvisation has no parallels with Western classical composition (1996: 74).

What possibilities can arise from a more integrative view of improvisation? Sorrell and Narayan argue in relation to Hindustani classical music that:

> what improvisation there is takes place within the narrow limitations of a strict discipline […] the narrower the limits the sharper the focus, and the really good musician is one who can find the greatest freedom within the narrowest limits. (1980: 2)

Perhaps instead of segregating improvisation, composition and performance, a move towards a flexible 'three-way relationship' (Cook 2007: 334), can bring insight to the ways in which musicians (including performers, composers and improvisers) negotiate creative constraints versus creative freedom. Contrary to the common perception that working with notated musics restricts the performer, violinist Peter Sheppard Skærved describes the interpretative space that opened up as a result of the separation between composition and performance in the nineteenth century when 'enormous opportunities emerged' for performers (Clarke et al. 2016: 164): 'some of the freest music to play is some of the most densely notated' (Clarke et al. 2016: 163). This point of view is shared across disciplines, for example in the precision of Japanese calligraphy

that 'demands a heightened responsiveness which, for practitioners who are truly skilled, can be truly liberating' (Hallam and Ingold 2007: 5).

The concept of improvisation is currently represented by a deeply problematic and arguably inadequate term. Clarke and Doffman summarise some of the contradictions in current scholarship; on the one hand, the calls for 'a much more nuanced set of terms to do justice to the very different kinds of musical practices' that the term improvisation currently encompasses (2017: 6); and on the other hand, drawing on Hallam and Ingold's commitment to the term by the fact that it acknowledges the generative, relational, temporal and working qualities of creative music making (Hallam and Ingold 2007: 3). Karnatic music provides further insight where there is no equivalent Sanskrit word for improvisation; instead, Karnatic performances include a combination of improvisation in different formats for each section of a piece: identified as *ālap* (unmetred phrases within a mode), *korappu* (rhythmic phrases of decreasing length), *ragam-thanam-pallavi* (an extended piece comprising *ālap* followed by a composition and several forms of improvisation) and more (see Widdess and Nooshin 2006: 7). Although I do not abandon the word improvisation, I use it with the considerations and limitations set out here in mind. By focusing on the improvisatory processes involved, my case studies investigate the use of Karnatic violin techniques and the ways in which they affect the creative process. This chapter aims to offer clarity on the processes involved in the creative working between composer and performer with a focus on the ways in which knowledge is passed between musicians as a way of generating ideas.

6.2. The composer-performer model

Situated within a London contemporary music setting, case studies 3, 4 and 5 all work within the broad framework of composer-performer collaborations. While this model is partly a consequence of the participants' training in either composition or performance within the Western classical tradition (as a result of the separation between the two disciplines in the nineteenth century), it is the creative possibilities that arise when composers and performers work together in creative collaboration that offer opportunities for both practice and research. The fundamental nature of involving the performer to varying degrees in the creative process challenges the traditional composer-performer model found in Western classical music, where 'the composer-hero stands over the interpreter' (Born 2005: 26) – as illustrated by violinist Joseph Joachim's creative input in Brahms' Violin Concerto, Opus 77 (1878) among other historical examples. However, Born's notion of the composer-hero is still present in many composer-performer collaborations:

> Collaboration is frequently a matter of the performer giving the composer access to his 'box of tricks', or of the composer presenting notated sketches to be tried out, adopted, discarded, or refined. Such pragmatic approaches may well be beneficial to both parties, but they come at the cost of reinforcing the boundaries inherent in their respective roles. (Fitch and Heyde 2007: 73)

The recent wave of practice-led research exploring the working relationships between composers and performers (as discussed in Chapter 2) has revealed some of the points of flexibility and permeation between the boundaries of composer and performer. Through observing shifting roles between composer and performer in the following case studies, I argue that there can also be merit

in reinforcing the roles and that the roles themselves are inherent in the collaborative model.

While a more detailed examination of the nature and workings of composer-performer collaborations lie beyond the scope of this research, using the roles of composer and performer as a point of reference within creative collaboration brings the relations with Karnatic violin technique into sharp relief. In a chapter about the working relationship between composer David Gorton and guitarist Stefan Östersjö, the four authors discuss the 'highly porous' division of creative labour that can be observed through the more 'solid roles' of composer and performer (Clarke et al. 2017: 116). Having identified four different phases in the creative process, the following statement describes some of the continuum that plays out, from dissolved to solid roles:

> there is an exceptionally fluid and distributed interpenetration of partially dissolved roles, instruments, tuning systems, living and dead composers, and embodied thinking-through-practice. The production of a score therefore represents something of a watershed in the total creative process, since the 'fluid practices' that we have taken pains to emphasize then give way to the somewhat more solid roles (composer and performer) that arguably underlay the more fluid earlier phase. (Clarke et al. 2017: 132-3)

The extent to which the roles of composer and performer can be dissolved and reinstated provides a fruitful starting point for the investigation of my own case studies.

In the case of my collaborations with Rob Szymanek and Jasmin Kent Rodgman, Karnatic violin techniques – as well as the mediated and/or direct relationship with my Karnatic violin teachers – play a crucial part in shaping and changing the

roles of composer and performer. To echo the findings from Gorton and Östersjö's collaboration: 'a more fluid understanding of these relationships can shed light on the specific function of the cultural and psychological tools that contribute to the definition of the respective practices' (Clarke et al. 2017: 116). At the same time as scrutinising the roles played by collaborating musicians, the creative process itself is inherently distributed.

6.3. Case study 3: *the bond between* (2011) with Robert Szymanek

the bond between (hereafter referred to as *tbb*) is the result of a collaboration spanning three years (2010-2013). Initially for solo violin and three loop pedals the piece was created with composer Rob Szymanek and lasts between 7 and 11 minutes (**Audio example 6.1**). The collaboration came about within the contemporary music context of the Royal Academy of Music, London, where Rob was studying for a doctorate in composition and I was undertaking a research project as part of my Masters degree in violin performance. Table 6.1 details the timeline of events for *the bond between.*

***tbb* phase: 1/2/3**	**Date**	**Event**	**Location**	**Personnel**	**Event code[165]**
tbb1	14/09/10	General discussion about ideas for the collaboration	Royal Academy of Music (RAM), London	RS / AB	M1
tbb1	14/02/11	Workshop: initial ideas	RAM	RS / AB	W1
tbb1	22/02/11	Workshop	RAM	RS / AB	W2
tbb1	02/03/11	Workshop	RAM	RS / AB	W3
tbb1	23/03/11	Workshop	RAM	RS / AB	W4

[165] The event coding follows the categories set out in the overview of video and audio recordings in Clarke et al. (2013: 129). The event codes are: A=arrangement, E=email correspondence, L=lesson, M=meeting, P=performance, R=rehearsal, S=recording session, T=technical rehearsal, W=workshop.

tbb1	31/03/11	Workshop	RAM	RS / AB	W5
tbb1	07/04/11	Workshop	RAM	RS / AB	W6
tbb1	04/05/11	Rehearsal	RAM	RS / AB	R1
tbb1	11/05/11	Rehearsal	RAM	RS / AB	R2
tbb1	19/05/11	Violin lesson	RAM	RD / AB	L1
tbb1	19/05/11	Technical rehearsal	Duke's Hall, RAM	RS / AB	T1
tbb1	25/05/11	Violin lesson		RD / AB	L2
tbb1	31/05/11	Rehearsal	RAM	RS / AB	R3
tbb1	01/06/11	Violin lesson	RAM	RD / RS / AB	L3
tbb1	01/06/11	Violin lesson	RAM	JS / AB	L4
tbb1	02/06/11	Performance	Dartford Parish Church, Dartford	RS / AB / audience	P1
tbb1	05/06/11	Technical rehearsal	Duke's Hall, RAM	RS / AB	T2
tbb1	06/06/11	Violin lesson	RAM	JS / AB	L5
tbb1	08/06/11	Post-concert evaluation and rehearsal	RAM	RS / AB	M2, R4
tbb1	09/06/11	Performance	Duke's Hall, RAM	RS / AB / audience	P2
tbb1	18/09/11	Recording session	Duke's Hall, RAM	RS / RBD/ AB	S1
tbb2	02/01/12	Violin lesson	Embar Kannan's house, Chennai (EK)	EK / AB	L6
tbb2	06/01/12	Violin lesson	EK	EK / AB	L7
tbb2	24/01/12	Workshop	RAM	RS / AB	W7
tbb2	26/01/12	Recording session	Manson Studio, RAM	RS / RBD/ AB	S2
tbb2	25/04/12	Recording session	Manson Studio, RAM	RS / RBD / AB	S3
tbb3	Dec 12	Arrangement for *tbb3*	N/A	AB	A1
tbb3	08/01/13	Rehearsal	Private rehearsal space (PRS), London	SH / EF / NV / AB	R5
tbb3	12/01/13	Rehearsal	PRS	SH / EF / NV / AB	R6
tbb3	13/01/13	Performance	Mango Landin',	SH / EF / NV / AB /	P3

			London	audience	
tbb3	21/10/13	Rehearsal	PRS	SH / EF / JW / AB	R7
tbb3	03/11/13	Rehearsal	PRS	SH / EF / JW / AB	R8
tbb3	08/11/13	Rehearsal	PRS	SH / EF / JW / AB	R9
tbb1	08/11/13	Rehearsal	PRS	RS / AB	R10
tbb1	08/11/13	Violin lesson	RAM	RD / RS / AB	L8
tbb3	10/11/13	Rehearsal	PRS	SH / EF / JW / AB	R11
tbb3	12/11/13	Rehearsal	PRS	SH / EF / JW / RS / AB	R12
tbb1 & *tbb3*	13/11/13	Performance	The Forge, London	SH / EF / JW / RS / AB / audience	P4, P5
tbb1	12/07/14	Rehearsal	LSO St Luke's (LSOStL), London	RS / AB	R13
tbb1	16/07/14	Technical rehearsal	(LSOStL)	RS / AB	T3
tbb1	18/11/14	Performance	(LSOStL)	RS / AB / audience	P6
tbb1 & *tbb2*	18/02/15	Interview	PRS	RS / AB	I1
tbb3	17/09/15	Email questions sent to participants of *tbb3*	N/A	SH / EF / JW / AB	E1
tbb3	05/10/15	Email response from SH	N/A	SH / AB	E2

Table 6.1. Timeline of events for *the bond between.*
The personnel are: composer Rob Szymanek (RS); RAM teachers Richard Deakin (RD), Jim Sleigh (JS); Karnatic violin teacher Embar Kannan (EK); sound engineer Roderick Buchanan-Dunlop (RBD); violinists Sarah Hill (SH), Eugene Feygelson (EF); viola players Neil Valentine (NV) at Mango Landin', Jenny Wilkinson (JW) at The Forge; and myself as a violinist and arranger (AB).

The starting point for the initial workshop sessions was a shared interest in exploring the ways in which contemporary music can cross stylistic borders and

musical traditions, as well as questioning the roles of music creators (in particular, those of composer and performer) where improvisation is a key part of the process. Rob has a Masters degree in Ethnomusicology with a focus on Sundanese Gamelan and Bolivian *tarka* flutes, which provided a significant point of connection in contrast to the predominantly Western classical environment of the Royal Academy. The involvement of elements of Indian (both Hindustani and Karnatic) violin playing in *tbb* came about through my experiences that were shared with Rob in the early workshop sessions. A specific aim, discussed in M1, was to experiment with ornamentation *(gamakas)*, *glissandi* and microtones from Indian and contemporary Western classical violin playing from the perspective of performers and composers.[166] The extent to which these decorative features of the piece should be fixed and potentially notated was central to the discussions in our initial workshops.

Using insights developed through working on *tbb* with teachers from both the Karnatic and Western classical violin traditions, I propose examples of creativity on a micro and macro level of input. The result is a shift of emphasis away from the original collaboration, exposing an entangled creative space from which subsequent versions of the piece emerged. Observing a shift of emphasis reveals questions about the relationship between the performer and the instrument in improvisatory practice, as shown in the autoethnographic accounts by guitarist Derek Bailey (1992) and jazz pianist David Sudnow (2001). Through discussing external and internal interactions with the violin, I investigate ways of experiencing the instrument as a way of locating the creative process. Drawing

[166] Worksop, 14 September 2010.

on socio-cultural theories of improvisation by scholars including Keith Sawyer (2003a, 2003b) and Sandra Mitchell (2012), I identify examples of emergent qualities that developed from improvisatory practices and are integral to the creative process in *tbb.* These include theories of group emergence that suggest the notion of a group 'self' organisation and subsequent feedback mechanisms for understanding the ways in which the members of a group work together. The group version of *tbb* will be examined to illustrate its effect on performances of the original version, which can be viewed as an exchange of creative ideas, or feedback loops. While I acknowledge the potential limitations of analysing *tbb* from the singular perspective of the performer, nevertheless my outlook presents a valuable perspective on improvisation and creativity from inside the collaborative process, as also shown in autoethnographic studies by musicians including Fitch and Heyde (2007), Mine Doğantan-Dack (2012) and Zubin Kanga (2014). Comments from interviews with the composer and one violinist from *tbb3* are also presented, in order to further enrich my discussion.

6.4. Distributed creativity: a shift of emphasis

Beginning by establishing the meaning of creativity for the context of this work, I then examine a shifting sense of the creative processes in the three phases of *tbb*. Studies in creativity have evolved from a focus on the individual in the 1950s, towards the 1990s notion of social and cultural practices whereby creativity can be located in collaborative practices and group interactions (Sawyer and DeZutter 2009: 81). While there are studies demonstrating how creative products emerge from collaborations, there is a lack of understanding in the group mechanisms, as well as the contributions of the individual parts, that

emerge to generate creative products (Sawyer and DeZutter 2009: 81). The term 'distributed creativity' has become a recognised method for viewing group dynamics, as defined by Sawyer and Stacy DeZutter as 'situations where collaborating groups of individuals generate a shared creative product' (2009: 82). Through following the notion that all music is inherently a creative activity (Hargreaves et al. 2012), I distinguish between two categories of creative practices in music in the following discussions of *tbb1* and *tbb2*. Micro-creativity refers to the creative contribution of performers interpreting a written score, where the performer's input is arguably on a micro scale due to the subservience to the composer. On a larger scale in terms of creative input, macro-creativity can be observed in the creation of the score itself and improvisatory processes that create musical material.

The three phases of *tbb* show multiple layers of distributed creativity between the improvisatory exchanges of the participants. Table 6.2 summarises the three phases of *tbb.*

No.	Dates	Instruments	Primary creative collaborators	First perform-ance	Audio
tbb1	Sep 2010 – Jun 2011	Solo violin (amplified) and 3 loop pedals	Composer & loop DJ Rob Szymanek (RS), myself (AB) as the violinist.	02/06/11	18/09/11
tbb2	Dec 2011 – Apr 2012	Solo violin (amplified) and 3 loop pedals	Composer & loop DJ RS, Karnatic violinist Embar Kannan (EK), violinist AB.	N/A	25/04/12
tbb3	Nov 2012 – Nov 2013	3 violins and viola (acoustic) – spaced out in a large square surrounding the audience	Composer RS, Karnatic violinist EK, violinst & arranger AB, violinists Eugene Feygelson (EF) & Sarah Hill (SH), viola players Neil Valentine (NV) & Jenny Wilkinson (JW).	13/01/13	13/11/13 (live)

Table 6.2. Table outlining three versions of *the bond between.*

The multiple contributions and entangled creative process demonstrates the ways in which creative emphasis can shift. I focus on the contribution from my violin teachers, who might conventionally be regarded as 'outside' the primary creative process, but whose input and guidance I sought in the process of preparing for performances and recordings of *tbb*. Identifying the technical and interpretative input from Western classical teachers as micro-creative, I use this as a point of comparison with the contribution of my Karnatic violin teacher in Chennai, Embar Kannan.[167] Kannan's approach can be viewed on a more macro-creative level as his improvisations were integrated into the compositional material. As the link and transmitter of ideas between the collaborators and teachers, my role and creative involvement shifted considerably throughout the process, demonstrating the changeable dynamics of collaborative exchange.

[167] Hereafter referred to as Kannan for continuity, as this is his given name.

Playing *tbb1* to teachers Richard Deakin and Jim Sleigh at the Royal Academy of Music (RAM, in 2011), London (L1-5, L8), provided me with expertise from the Western classical violin tradition. Both teachers had little or no experience of Karnatic classical music, musics in cultural exchange or working with loop pedals, so their input was purely on a technical basis, in preparation for the performance of *tbb* in my final recital at RAM (P2). As such, the RAM teachers were involved as instrumental teachers within the context of my allocated violin lessons at RAM, which coincided with the first performance stage of the project. Their input consisted of suggestions for shaping the way I played and choreographed *tbb* in terms of bowings and fingerings. A focal point in several lessons in June 2011 was the section at rehearsal Figure F (4:15 in **Audio example 6.1**; see Score 6.1 for a copy of the full score), which is the most virtuosic section of the piece; Jim Sleigh suggested making the changes of position as clean as possible where there are no *glissandi* between notes, to give greater contrast between the non-*glissando* and *glissando* shifts (L4).[168] Considering these contributions as micro-creative in *tbb1*, the input of the RAM teachers significantly developed my delivery of the piece from a technical and interpretative perspective. They did not make alterations to the score, thus exemplifying the traditional Western classical model of performers (and instrumental teachers) interpreting a composer's score. However, the dynamic between the teacher/student/composer was different in comparison to working on music by a composer whose work was familiar to the RAM teachers. There was greater emphasis on my perception of the work as a collaborator in the

[168] Other advice from these teachers at the RAM included reducing the movements between string crossings, by lifting the right elbow rather than the right wrist, to execute the fast runs of demi-semi-quavers as smoothly as possible.

primary creative process, as opposed to a predominantly teacher-driven interpretation, which would be more typical at the RAM when working on compositions by well-known Western classical composers.

Working on *tbb* during my Karnatic violin lessons in Chennai (December 2011-January 2012), Karnatic teacher Embar Kannan[169] experimented with improvising over the recording of *tbb1* (L6-7) Having anticipated that Kannan would respond with a similar technical focus to the RAM teachers, I was surprised by his proposal and enthusiasm to add material to *tbb.* Identifying the different modes that *tbb* moves through (including the Karnatic *Rāgas Shankarabharanam, Mohana, Vasanthi* and *Hamsadhwani*), Kannan taught me how to play typical phrases from *rāgas* based on them, which can be inserted into the piece: demonstrated by Kannan in **Audio example 6.2** and shown in Score 6.2. While Kannan was responding to the material in *tbb,* he was playing within the framework of Karnatic classical music, predominantly within *Rāga Mohana* (a pentatonic mode). The tradition and significance of improvisation for Karnatic performers perhaps explains Kannan's decision to operate as a composer-performer in *tbb* – a role that was not explicitly discussed with him. Kannan's additions to the compositional material can be viewed at a macro-creative level, making significant alterations to the structure, character, pace and length of *tbb* (**Audio example 6.3**). Without direct interaction with the composer and the original creative process, Kannan's input through the course of lessons along with the concept and material for additional phrases provided a significant new creative outlook for me from which to approach *tbb*.

[169] Note that I refer to Embar Kannan as Kannan hereafter as this is his given name.

The involvement of Kannan's improvisations shifted the creative focus away from the initial collaboration. The diagram below demonstrates the basic levels of creative exchange that took place throughout the collaborative process between the participants of *tbb1* and *tbb2*.

Black boxes: primary creative processes
Red arrows: macro-creative processes
Blue arrow: micro-creative process

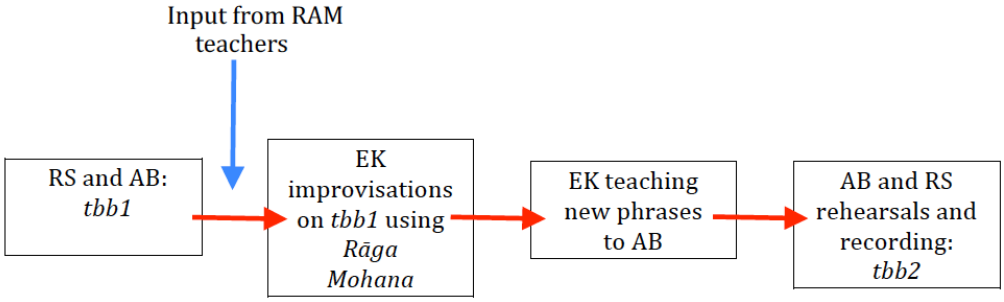


Figure 6.1. Diagram of creative exchange for *tbb1* and *tbb2.*

There was a shift in the balance between the collaborators; from Rob taking a leading role in the creative input of *tbb1*, to a more distributed creative space with Kannan's contributions and my increased creative involvement. As well as the additional phrases that were added into *tbb2*, I used my experiences studying with Kannan to re-assess the ways in which I technically choreographed *tbb* in terms of fingerings and bowings, resulting in a new interpretation of the piece. Figure 6.2 illustrates one examples of a new choreography, which is achieved by incorporating block fingering (see Chapter 3 and **Video example 3.5** for a demonstration of block fingering).

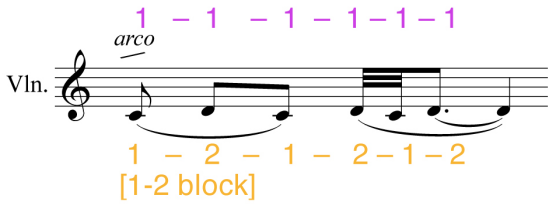


Figure 6.2. *the bond between*, before letter A (Szymanek 2011: 3).

The finger numbers (purple) above the stave are for *tbb1;* those below the stave (orange) are for *tbb2.* As a comparison of the two versions in Figure 6.2, **Audio example 6.4** is an extract from the full recordings of *tbb1* followed by *tbb2.*

More examples of changes to the choreography are shown by annotations to the score (Scores 6.1 and 6.2). In comparison with the shift of emphasis discussed following the lessons with the RAM teachers, my experience of being part of Kannan's field of culture and music moved the emphasis away from Rob to a much greater extent, initially to Kannan as my guru who made creative decisions in a typical guru-driven dynamic. A second shift of emphasis can be observed following the lessons with Kannan where I took more of a creative lead, making decisions about how to use Kannan's phrases and conveying the information back to Rob (W7).

As I did not have access to loop pedals in Chennai, the decisions about how to use and interpret Kannan's phrases were made in a collaborative session with Rob in London after my trip to India (W7). The mode of working in this session was less composer-led in comparison to *tbb1,* with me making decisions on how and where to use the material from Kannan, thus demonstrating how a shift in emphasis can transform creative processes in collaborative practice. While *tbb1*

was a more traditional composer-performer collaboration, an environment for a distributed way of working was suggested by Rob in a discussion in the first collaborative meeting (W1):

> [We could create] something experimental, not necessarily in sound but in the ways it comes together [...] This is what's really interesting; the line between composer and performer really blurs. If you, [present some techniques for me to use], you are giving the creative material. It's partly yours as well.[170]

Although the collaborative method became increasingly composer-led after this initial meeting, with Rob presenting the material in the score that subsequently reinstated the division of labour between composer and performer, these early discussions potentially opened up the possibility for a shift of emphasis that I have observed in *tbb2*. One main observation was in the dynamic between Rob and myself, which moved away from a traditional composer-performer model towards a more shared working platform where both composer and performer directed the creative process at different points. With Kannan's additional phrases added into my score by hand (shown in the hand written fragment and yellow arrow in Figure 6.3, an extract from Score 6.2), the ownership of the score itself also shifted away from being solely Rob's creation.[171]
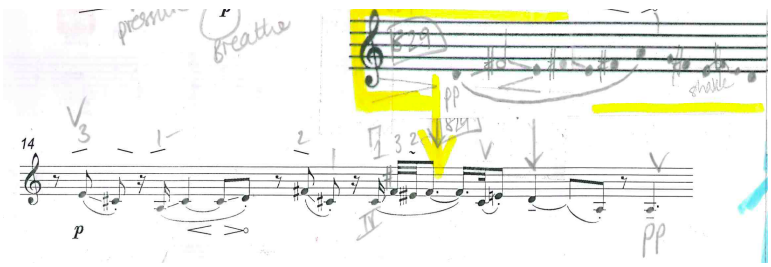


Figure 6.3. Score of *tbb.2* with my transcriptions of Kannan's phrases (Szymanek 2011: 3).

[170] Workshop, 14 September 2010.
[171] Note that *tbb2* exists as an online recording where it includes the following heading: 'April 2012: incorporating phrases and techniques from Alice's Karnatic violin lessons with Embar Kannan'. *tbb2* has not been performed live.

The enhanced creative role that I took on in *tbb2* facilitated my increased creative contribution in comparison to *tbb1*. In addition, the social angle of *tbb3* brought more room for creative manoeuvre, engaging with Karnatic violin techniques in several different ways, which I discuss in section 6.5.

Before discussing group emergence in *tbb3,* I turn to questions that draw parallels with those in *tbb1* and *tbb2* exploring the shifting relationships between the roles of composer and performer, process, instrument and score in *Recitations.* Rather than existing in multiple phases, as in the case with *tbb1-3*, it is the difference in the creative process that occurs between the two movements that is the focus for investigation.

6.5. Case study 4: *Recitations* (2017) with Jasmin Kent Rodgman[172]

Recitations is the resulting piece, lasting between 12 and 17 minutes, from a collaboration between composer Jasmin Kent Rodgman and myself. It is for one performer using two scordatura violins and two loop pedals that are operated by the violinist (**Audio example 6.5**).[173] The collaboration stemmed from a number of shared interests: music for solo violin with loop pedals;[174] graphic (painted) notation and visual art scores; and elements of cultural exchange, specifically Jasmin's British-Malaysian heritage and recent work with contemporary Indian dance and my experiences studying with Karnatic

[172] We are grateful to Sound and Music for their generous support for this project through the Francis Chagrin Award.
[173] Note that there are detailed instructions for the set up and notation systems in the score – see Score 6.3.
[174] I had heard Jasmin's composition for quintet and electronics and she had listened to recording of *tbb*.

violinists.[175] Although Jasmin did not have any prior experiences with Karnatic classical music, this was an initial point of discussion for our collaborative sessions. Our collaborative meetings were relatively time intensive in comparison to my other case studies, beginning in February 2015 with 17 workshop sessions each lasting approximately 2 hours each prior to the première performance in March 2017, as shown in Table 6.3 below.

Date	**Event**	**Location**	**Personnel**	**Event code[176]**
06/02/15	Email correspondence (multiple)[177]	Private rehearsal space, London (PRS)	JKR / AB	E1
20/02/15	Workshop: initial discussions	PRS	JKR / AB	W1
18/03/15	Workshop: initial discussions	PRS	JKR / AB	W2
04/05/15	Workshop: discussions about modes, structure, scordatura	PRS	JKR / AB	W3
03/07/15	Workshop: discussions about modes, graphic notation	PRS	JKR / AB	W4
11/08/15	Workshop	PRS	JKR / AB	W5
16/09/15	Workshop: scordatura and bowing techniques	PRS	JKR / AB	W6
06/11/15	Experimentations: score with scordatura violin, quadruple-stop *venuti* bowing technique	PRS	JKR / AB	W7
08/03/16	Workshop: graphic notation, scordatura	PRS	JKR / AB	W8
29/04/16	Workshop: arc 1, no loop pedals	PRS	JKR / AB	W9
13/05/16	Workshop	PRS	JKR / AB	W10
27/05/16	Workshop: arc 1 with loop pedals	PRS	JKR / AB	W11

[175] See Appendix I (artist biographies) for further information about Jasmin's work.
[176] The event codes are: C=conference paper/performance, E=email correspondence, L=lesson, M=meeting, P=performance, R=rehearsal, W=workshop.
[177] I have only included email correspondences here that relate directly to the creative process. There were many more emails about logistics and scheduling workshops etc.

02/07/16	Workshop and recording of arc 1; discussion about progress so far	PRS	JKR / AB	W12-M1
15/07/16	Paper presentation about the *Recitations* project at the Performance Studies Network Conference 2016	Bath Spa University	AB / audience	C1
21/10/16	Workshop: Arc II material	PRS	JKR / AB	W13
03/11/16	Workshop	PRS	JKR / AB	W14
22/11/16	Workshop / rehearsal	PRS	JKR / AB	W15
07/12/16	Rehearsal	PRS	JKR / AB	W16
26/01/17	Lesson with Mysore Nagaraj	Mysore	MN / AB	L1
02/02/17	Rehearsal	PRS	JKR / AB	R1
03/03/17	Pre-concert rehearsal	Department of Music, York University	JKR / AB / LQ	R2-P1
04/03/17	Performance	York Late Music, Unitarian Chapel, York	JKR / AB / LQ / Dr K Sextet / audience	P1
10/04/17	Post-concert evaluation	Book Review Café, London	JKR / AB	M2
06/06/17	Workshop: movement II	PRS	JKR / AB	W17
08/12/17	Workshop: movement II	PRS	JKR / AB	W18
05/04/18	Workshop: movement II	PRS	JKR / AB	W19
15/04/18	Pre-concert rehearsal	Somerville College Chapel, Oxford	AB / TH	R2-P2
15/04/18	Performance	Holywell Music Room, Oxford	AB / TH / JKR / Dr K Sextet / audience	P2
21/11/18	Performance	Bristol Pre-Conservatoire	AB / audience	P3
23/11/18	Performance	Robinson College Chapel, Cambridge	AB / Dr K Sextet / audience	P4

Table 6.3. Timeline of events for *Recitations.*
The personnel are: composer Jasmin Kent Rodgman (JKR); myself as the violinist (AB); and sound engineers Lynette Quek (LQ) in York and Tim Hand (TH) in Oxford. Performances P1, P2 and P4 were part of concerts with Dr K Sextet (see Chapter 7).

For the purposes of this case study, I focus on two fields of enquiry. First, the juxtaposition of two distinctive creative processes for movements I and II of *Recitations*, as illustrated in the changing roles of composer and performer in relation to improvisation, notation and Karnatic violin techniques. Second, I investigate the role of scordatura by asking how a scordatura of restringing the violin affects the creative process. My experiences playing this scordatura draw parallels with my Karnatic violin lessons (Chapter 4).

Two movements: two violins: two processes

> A Collaborative Project by
> Jasmin Kent Rodgman (composer)
> &
> Alice Barron (violinist)[178]

The title page of *Recitations* above suggests both a recalibration of the traditional composer-performer model by including the terms 'a collaborative project' and a commitment to the roles of composer and violinist-performer. This attribution came about through a discussion about the creative process following the première performance:

> AB: We are in a composer-performer model, but not in a conventional way. I haven't had a role as a composer […] but at the same time it wasn't co-authored […] I feel that there's not really a model that represents what we did and that's exciting.
> JKR: […] People will know that I wrote the dots on the page, but it's how we came to that [which is significant], which is not [through] traditional or conventional [means].[179]

Although Jasmin and I occupy the roles of composer and performer, the boundaries between the two often become blurred.[180] As in *tbb,* the

[178] Title page for the score of *Recitations*.
[179] Meeting (M2), 10 April 2017.

incorporation of Karnatic violin techniques shifts the creative emphasis away from the composer into a more distributed space in the initial stages, where the aim is to disseminate knowledge of the instrument and then build a shared knowledge for the piece.

Recitations comprises two movements which possess significant differences in the musical material, instrument, use of the loop pedals, notation and creative process. The first movement consists of three composed (and fixed) sections of music lasting approximately two and a half minutes that are each recorded live and layered up by loop pedal II with four short (usually around 10-15 seconds) looped phrases on loop pedal I. Movement II uses a violin with a different scordatura (lower in pitch) with a drone recorded onto loop pedal I and short phrases added to loop pedal II. It is scored with a combination of standard notation and paint that acts as a graphic score for the performer to improvise from (see Score 6.3 for a score of *Recitations*). It is intended that both performer and composer apply the paint to the score for Movement II prior to each performance – this creates a new source of inspiration for the improvisations in every performance. Figure 6.4 shows the scordatura for each movement, which is achieved by using two violins:

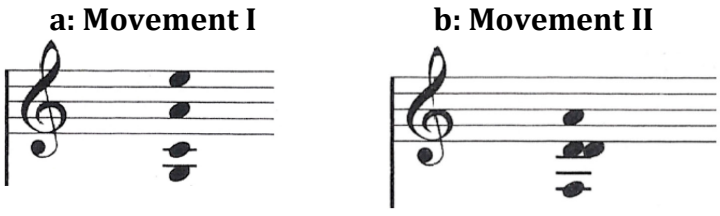
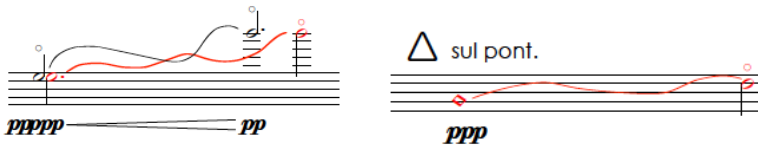


Figure 6.4. Scordatura for *Recitations.*

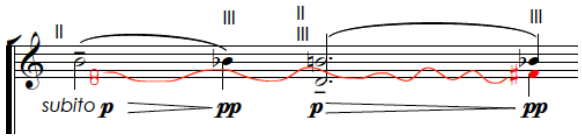
[180] For example, although Jasmin does not perform in the piece, she does play the violin and viola; at the same time, there are several moments in the revisions of Movement II where I made suggestions that were implemented into the composition, as I discuss below.

The scordatura for movement II requires restringing a violin with the strings G-D-D-A that are tuned to the pitches above. It is the way in which Karnatic violin techniques are incorporated in each movement that can help to identify a shift in the creative process. Rather than the degree of creative emphasis between composer and performer shifting over the course of different phases of the same piece as in *tbb,* this example presents a shift within the piece itself, which leads to an entangled relationship between the roles of composer and performer. One of the concerns that I raised with Jasmin following the première performance of *Recitations* (M2) was the relationship between the two movements, specifically the effect – and possible lack of continuity – that occurs as a result of such a significant change in process and material, something that was addressed as part of the revisions prior to the second performance.

The process and format of movement I broadly reflects that found in *tbb1* where a few Karnatic violin techniques are embedded in the score: for example, varying *glissandi* and wide vibrato, as shown in Figure 6.5:



a: ***glissandi*** (**Audio example 6.5:** 0:16, 2:53 and 3:39)



b: wide vibrato (**Audio example 6.5:** 4:12)

The pitch range of the vibrato is specified by the cluster of a minor third; as this is beyond the range of a finger roll, a *glissandi* using a whole arm movement is used to achieve the effect.

Figure 6.5. *Recitations:* examples of *glissandi* and vibrato in Movement I[181] (Rodgman 2017: 3-4).

The techniques above became part of the score following the initial workshop sessions, with me acting as an intermediary for the toolbox of Karnatic violin techniques, which subsequently were treated as part of a broader contemporary extended violin technique. Having explored the ways in which specific techniques from studies with Karnatic violinists contribute to the blurring of boundaries between composer and performer in *tbb,* I focus this discussion on the response to the painted notation in movement II of *Recitations*. I question the ways in which Karnatic violin techniques emerge through improvisatory processes, rather than as part of the score and ask what this creative freedom for me as the performer brings to the collaboration.

While the style of the painted notation and the way of responding lies beyond the scope of this research, I will discuss how the concept of improvisation (which is

[181] Notes in black are to be played only during loop 1; notes in red are to be played only during loop 2. The excerpts shown here are for scordatura a and depict the fingered (not sounding) pitch only. Note that there are no bar lines or bar numbers in *Recitations.*

indicated by the artwork) shifts the creative emphasis of the piece.[182] The painted notation was discussed throughout the course of the collaboration and includes a small contribution from Jasmin (the green in Figure 6.6) with the majority left to me to add to the score before each performance. The response to the extract shown in Figure 6.6 can be heard at 10:12 in **Audio example 6.5**.



Figure 6.6. *Recitations* Movement II, an example of painted notation added to Jasmin's score[183] (Rodgman 2017: 5).

The notion of the performer painting on the score, sometimes obscuring notation at Jasmin's request (but not in specified places), brings a new relationship between composer, performer and score. The following dialogue from the workshop session before the second performance (P2) demonstrates how Jasmin repeatedly handed the creative authority to me in these sections:

> I felt that there needed to be more sense of you in the music and that otherwise it's not really a collaboration [...] I love what you did in the improv last time [...] We've spoken at length [about the improvisations], I don't think we've solved any [problems], because if you [discuss it] for too long it's not improv at all, it's just another language or another notation. When I say freely I genuinely mean it [...] that's you, I don't want to tell you too much [...] Go wild![184]

Contrary to Jasmin's concern about providing too many constraints for improvisations, in a chapter on 'the conundrum of composing an improvisation'

[182] The performance instructions in the score, from the composer, indicate that 'interpretation of the painted shapes and colours of the second movement are left entirely up to the discretion of the performer' (Rodgman 2017: 1).
[183] The upper line in Figure 6.6 is written at sounding pitch. See Score 6.3 for the full score.
[184] Workshop (W19), 5 April 2018.

composer Jeremy Thurlow (who features in Chapter 7) discusses the significance of upholding the responsibility of the composer: keeping 'my part of the bargain […] It's a sort of contract as an artist […] And I wanted to honour that contract' (2017: 238). Evidently there are different 'threshold states' (Clarke et al. 2013: 6) for the degree of composed material versus performer's freedom in any given collaboration. What is significant in the case of *Recitations* is the way in which this threshold appears to shift throughout the process and the piece, by virtue of the painted notation improvisations. Movement II engages with constant changes to the balance between the composer and performer, including:

- Jasmin presenting notated material;
- My suggestions for changes to the score;[185]
- Discussions about the painted notation;
- My improvised responses to the painted notation.

Having established a distributed and entangled process, I explore the experience of working with these shifting roles – and by questioning the role of improvisation in Movement II of *Recitations*. In our workshop discussion, I commented on the improvisations:

> Whilst the roles of composer and performer are more blurred [at this point], there's still a very strong element of both. That's not necessarily a bad thing, but it's difficult to move away from that. And the improv is the space where it does [move away from the conventional roles of composer and performer].[186]

The improvisation in turn initiates a different relationship with the composed material and at the same time, the composed music sets up a framework for the

[185] This is particularly apparent in session W18 where we suggested swapping the ordering of the musical material and adding more loop pedal work for the passage marked as 'Freely and a bit hurried'.
[186] Workshop (W19), 5 April 2018.

improvisations to work within. It is significant that the painted notation always occurs after the more composed material: while I could have played anything in those instances, it seemed more suitable to broadly reflect on and reference existing material from the piece. As such, the improvisations serve to draw the workshop process – in all its distributed and entangled states – into the piece itself.

In an article examining the improvisatory elements of a piece composed by Liza Lim, Clarke et al. suggest a move away from the polarised approach to composed and improvisatory material in a single piece: '[t]he work was therefore concerned less with improvisation versus composition than with finding ways of activating, or allowing for, different 'threshold states' in the performers' (Clarke et al. 2013: 6). This approach can instead open up possibilities for exposing the transitory points of creativity in performance. Having stated the significance of my improvisations in *Recitations* ('otherwise it's not really a collaboration'), the experience of performing a piece with multiple approaches requires a flexible approach to the creative process and composer-performer relationship. Where movement I comprises more conventional relationships between composer, performer and the score, the positioning of this material before the painted notation of movement II establishes a more composer-led creative process. In contrast, Jasmin's comment to 'go wild' in the improvisations of movement II can perhaps be interpreted as the result of my initial expectation that my improvised contribution was constrained to the material within the context of movement I. However, following the conversations above, I began to take more creative liberties, including improvising beyond the violin by using the loop pedals and

the scordatura (de-tuning the lowest string: **Audio example 6.5** from 13:10 to the end). Jasmin handed a considerable degree of creative freedom to me for movement II in comparison to movement I (for example, leaving the end of the piece to my discretion), which highlights the complicated balance between improvisation and composition, as well as between the input of composer and performer. In this example, the Karnatic violin techniques act as creative capital for me as the performer: part of a 'box of tricks' (to return to Fitch and Heyde's observations) that becomes an explicit feature of the piece, but simultaneously a creative incentive that emerges more implicitly in both interpretative and improvisatory sections of the piece. In particular, this example has demonstrated how composed and improvised material do not constitute a binary, but are part of a more entangled space.

Improvising with scordatura

Using F_3–D_4–D_4–A_4 scordatura (see Figure 6.4) provided a framework for improvising with; one that was a particular challenge (particularly the use of two strings tuned to unison D_4) as it is not a scordatura with which I am familiar. In many ways, the scordatura shifts some of the creative process back to the composer who is exercising constraints for the performer to work within. However, performers' perspectives that formed part of my earlier discussion of an integrated perspective of improvisation reveal a contrasting experience for improvising with pre-determined constraints. *Sarangi* player Ram Narayan provides a perspective from the Hindustani tradition and observes that 'the narrower the limits the sharper the focus' (Sorrell and Narayan 1980: 2). As Narayan is working within a largely non-notated tradition, the constraints that

he is improvising within refer to stylistic and technical structures, among others. Looking specifically at notation as an additional limit for the performer, violinist Peter Sheppard Skærved comments that 'some of the freest music to play is some of the most densely notated' (Clarke et al. 2016: 163). Drawing insight from perspectives such as Narayan and Sheppard Skærved's can provide a new outlook from which to approach the challenge of improvising within the boundaries of the scordatura in Movement II of *Recitations.* In many ways, my experiences of playing with F–D–D–A scordatura draw parallels with the felt experience that I investigated in my Karnatic violin lessons in Chapter 4. Here, I observed a transition from the unfamiliar to the familiar, opening up a space for new knowledge of the instrument and where sites of resistance can ultimately lead to creative pathways.

Thinking of the violin as a flexible instrument through multiple musical traditions, it is worth considering how experimentations with scordatura have become more frequently used in Western classical compositions throughout the twentieth century.[187] From a historical perspective, the fixed nature of standard G–D–A–E tuning can itself be seen as a point of resistance by not facilitating the natural harmonics and overtones of the open strings for keys that are unrelated to those of the open strings (in contrast to the Karnatic system of tuning the violin, which always has the open strings as the tonic and dominant). By returning to a more flexible approach to violin tuning that existed prior to the nineteenth century, contemporary violinists are arguably accessing a new

[187] Robin Stowell uses Scelsi's String Quartets Nunbers 3 and 4 along with those by Penderecki and Xenakis as examples of scordatura (2003: 157); there are also a range of historical examples including Biber's Rosary Sonatas (c. 1676) and Mahler's Symphony No. 4 (solo violin, 2nd movement, 1899-1900).

relationship with the instrument that has consequential effects on the ways they engage with collaborating musicians. In an interview I conducted with violinist David Harrington from the Kronos Quartet, he discussed his relatively unfamiliar experiences with scordatura (in this case when playing a piece by a composer based in Lebanon):

> The whole idea of scordatura is a very, very big deal in terms of the sound of the violin […] The wonderful thing about it was as I was retuning my instrument, I felt it change culture. It was [as if that happened] right in front of the entire audience [and] the entire quartet; my violin became a Lebanese instrument […] It feels very different and part of that is [to do with familiarity and] if you frequently [use different scordatura] on your instrument. If you often change the pitch of the open strings, it might not be so dramatic, as it would be for someone who doesn't very often do that. Maybe that's what happened to me.[188]

While I do not claim that my violin changes culture with scordatura F–D–D–A, I would suggest that Harrington's comments above are more suggestive of moving away from the familiar knowledge of standard G–D–A–E violin tuning, which both reflects on and is informed by my Karnatic violin lessons. As I explored in Chapter 4, the experience of disrupting the familiar, learned ways of playing the violin invite a new relationship with the instrument – and new ways of knowing. Looking at the shifting roles between composer and performer, it is significant that this scordatura came about at Jasmin's request, rather than through my own experimentations (which was the case for the scordatura in case study 6 that I discuss in Chapter 7). As such, the composer-performer relationship and continuum between composed and improvised music becomes ever more distributed and entangled.

[188] Interview with David Harrington, 17 May 2016.

Shared knowledge

As a brief point of comparison between the two case studies, I draw on a session working on *Recitations* with Mysore Nagaraj.[189] The session with Nagaraj involved identifying *Recitations* as closely, but not exactly, related to *Rāga Jothi Swarupini* and improvising within the *rāga* rather than using the piece itself. Nagaraj's input in *Recitations* provided an example of improvisations within the *rāga;* by contrast, the composed material and the collaborative process with Jasmin primarily guided my improvisations in the performance of *Recitations*. My Karnatic violin lessons, and especially this session with Nagaraj, are instead viewed as a more integrated and emergent influence on my improvisations in comparison with those in *tbb2* – and form part of a toolbox of contemporary violin techniques. How did these different processes affect the composer-performer relationship? In many ways, a more integrated approach to Karnatic violin techniques in improvisation helps to cultivate more of a shared creative space – and shared knowledge – in composer-performer collaborations. The example of Kannan's additional phrases in *tbb2* proved a more drastic move away from the composer, while *Recitations* illustrates some of the tensions as well as creative potential of operating with more blurred boundaries between composer and performer.

6.6. Taking *the bond between* to a group: *tbb3* (2013)

I now return to *tbb* with questions relating to improvisation and Karnatic violin techniques in the group version, *tbb3,* which acts as a bridge to the next chapter on group creative practice. I examine the ways in which group interactions

[189] Violin lesson with Nagaraj, 26 January 2017.

present complex developments where ensembles aggregate through improvisatory processes and shifting relationships between composers, performers and instruments. While it is difficult to unpick all the complexities of creative group interactions (especially when there are multiple levels of organisation in chamber music groups), recognising the stimuli and development for emergent behaviours in *tbb3* can inform the often-unpredictable pathways in which creative decisions evolve. I draw attention to those properties and behaviours that emerged in *tbb3* from improvisatory exchanges and the influence of Karnatic violin techniques, concluding with an investigation into my rendition of *tbb1* when it was performed in the same concert as *tbb3* (The Forge, London, November 2013, P4, P5).

Inspired by the workshop experience and a performance of a cue-based composition, *The Wind* (2010) by Laurie Bamon, *tbb3* has no time signatures or regular metre and consequently relies entirely on cues between the four musicians. Although *tbb3* was originally scored and performed by four violins the current version matches the instrumentation of three violins and viola for *The Wind,* which was performed in the same concert.[190] The appeal of using cues enhances the social quality of the piece through increased communication between the players. Communicative features included eye contact, facial expressions (often smiles) and bodily gestures (raising the scroll of the violin/viola).

[190] To allow for the third part to be played using a violin or viola, this part (V3) is notated in treble clef – see Score 6.4.

In *tbb3* the melodic sections from *tbb1* were all reduced to a series of pitches and fragments for the performers to improvise from: see Score 6.4. (I will refer to this as an 'outline score', as opposed to a fully notated score.) These improvisations allow each musician an element of creative freedom over the direction of the composition. Figure 6.7 shows one of the melodic sections where the score is used as a guide for the second violinist to improvise on: 5:21-6:16 in **Audio example 6.6**. The indication on the score is for the player to use the pitches and motifs in any order, moving through sections i, ii and then iii.[191]

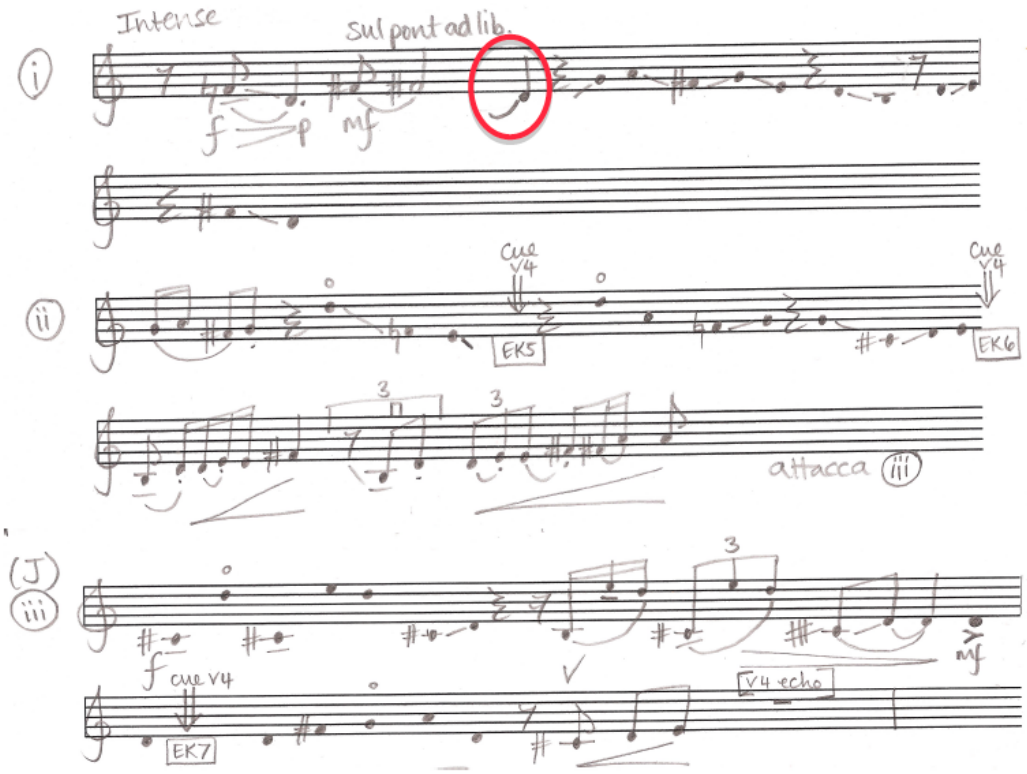


Figure 6.7. *the bond between,* acoustic arrangement (*tbb3*), violin 2 solo (Szymanek / Barron [2011] 2013: 2).

Experimenting with improvisatory material and engaging with techniques from Karnatic violin playing that were new to the players other than myself, such as the varying speeds of *glissandi* (see Figure 6.7, fourth note: slow-to-fast

[191] Although the players tended to use the material in the order presented in the score, they have the freedom to select (and potentially repeat) the pitches and motifs in any order they choose – not necessarily utilising all the material.

glissando, circled in red), resulted in a performance that emerged through the collaborative rehearsal process. In response to a question about whether the musician's perception of *tbb3* changed throughout the process, violinist Sarah Hill explains:

> I was really influenced by the playing styles of the other three members of the group so by the end I was playing it very differently and I think the whole thing sounded very different. This piece felt so much about dialogue, about creating homogenous textures, but also jumping out of these textures and reacting in the moment to the sounds around you. So, by the final performance, after getting to know each other's playing we were able to do this instinctively and therefore the piece just made sense![192]

This perspective from Sarah illustrates how performance qualities emerged through the rehearsal process. Through emerging to a different level, the musicians developed a group interpretation of *tbb* (as shown by Sarah), and subsequently a group performance and group techniques, which can be understood in light of theories of collaborative emergence.

Collaborative emergence

The Kreutzer Quartet (Peter Sheppard Skærved et al.) describes this process as 'removing the 'I' and talk about 'earning' their way into a piece' (Gorton and Sheppard Skærved 2014). What is 'earned' can be described in terms of emergent properties – or building a shared group knowledge – at a higher level rather than the contributions of the individuals, summarised by the well-known statement, attributed to Aristotle, that 'the whole is greater than the sum of the parts'. Theories of emergence have a long history, with origins in biological evolution, encompassing philosophy in the early twentieth century,

[192] Email correspondence from SH to AB, 5 October 2015.

developmental psychology and more recently, creativity research, which provides the context for this research (Sawyer 2003a: 13).

Sawyer uses the term 'collaborative emergence' to represent group creative practice; a concept that he argues underpins theories of creativity:

> when the group dynamic is flowing, the performance that results is greater than any one individual [...] the group leads each individual to perform at a higher level than he or she would have been capable of alone. (2003b: 10-11)

Sawyer's statement above implies that the lower level properties are the qualities and contributions of the individual, which develop to a higher level and combine with those of the other contributors as a result of the group interactions. He further explains that

> when aggregates of basic entities attain a certain level of structural complexity, properties of the aggregate emerge. New stuff does not emerge; rather it is properties of the higher level entities that emerge. (Sawyer 2003a: 15)

Identifying higher level emergent entities brings insight to the study of creative processes, as it is these emerging properties that are imperative to creative group interactions. Approaching emergence from the perspective of higher and lower functional levels has been applied by scholars including Sawyer and Mitchell, in response to claims in the past of the inexplicability and non-reducibility of emergence (Mitchell 2012: 172). The following discussion will focus on two properties of emergence that are significant in understanding group creativity: first, the dissemination of leadership within a group; and second, feedback mechanisms.

Guy Hayward (2015) distinguishes group dynamics as either top-down or bottom-up aggregation: directed by an individual leader or collaboratively driven from the group. While a top-down hierarchy gives a more stable unity for the group, due to 'the whole group adhering to principles that are 'above' any one individual', it is the dynamic instability of the bottom-up model that is unpredictable, and thus provides possibilities for higher-level functional properties to emerge (Hayward 2015: 108). Mitchell uses two models commonly found in the natural world to demonstrate group dynamics that can be applied to groups of musicians: first, the familiar image of a flock of birds to demonstrate the workings of a bottom-up organisation; and second, the feedback mechanisms that are part of the group workings in colonies of honey bees.

> The vee pattern that emerges in a flock of geese or the more complex patterns of flocking starlings are not predictable by an aggregation of behaviors of individuals in solo flight, but only from the non-aggregative interaction of self-organizing that derives from the local rules of motion plus feedback among the individuals in group flight. (2012: 179)

Through operating as a bottom-up organisation, the flock of flying geese develops higher level behaviours that consequently create a system 'self' that organises the whole. This notion of self-organisation is reliant on, and bound up in, the multiple feedback mechanisms that exist in emergent behaviours, in forward and reverse loops (Mitchell 2012: 180).

The second of Mitchell's examples examines feedback loops that represent some of the multiplicities and complexities of emerging interactions in groups: 'feedback interactions among simple behaviors of individual components of a system produce what appears to be an organized group-level effect' in colonies

of honey bees (Mitchell 2012: 183). Identifying the division of labour in the colony highlights the contribution of the individuals and the reliance on self-organisation for the success of the bees. To use one part of the process as an example, the forager bees who collect nectar from flowers unload the nectar to the worker bees to be stored in the cells of the hive; the amount of time that the forager bees wait for the worker bees to take the nectar affects the frequency of flights of the foragers, subsequently increasing or decreasing the rate of nectar accumulation. As the cells of the hive become full the worker bees take longer to find the empty cells. Mitchell describes 'how an adaptive structure at the higher level emerges from individual behavior and how the higher-level structure *causally influences* in a feedback loop adaptation at the lower level' (2012: 183). In nature, these adaptations at the lower level subsequently give rise to evolutionary consequences, based on the success or failure of the colony (Mitchell 2012: 180). Applying theories of emergence to *tbb3*, I use examples of higher and lower level structures, self-organisation and feedback mechanisms to discuss emergence in collaborative music making.

tbb3 as an emergent group

In his study of group creativity, Sawyer categorises the process of using 'pre-existing bits or ready-mades' in improvisation as 'ritualised' practice, which he argues reduces the creative input of the performer (2003b: 139). On the contrary, my experiences rehearsing and ritualising the conversational phrases that respond to each other following cues in *tbb3* increased the creative input of the performers by enabling the musicians to make their own creative judgements about each phrase they play – in terms of motifs, phrase shape,

ornamentation etc., as a result of the outline score and improvised nature of the piece. Further creative distribution occurred when each musician played an improvised solo based on material in the score with the intention that the player should draw on their individual stylistic and expressive qualities, in contrast to the homogenous sound world created by the loop pedals in *tbb1*. For example, viola player Jenny Wilkinson drew on her roots of Scottish folk music in her interpretation of the first melody (0:46-1:59 in **Audio example 6.6**). While the involvement of each performer is impossible to quantify, it appeared to increase throughout the rehearsal process and was evident from the increasingly animated verbal exchanges in the rehearsals and through talking to the players.

While group interactions lead groups to a stage that is more than the sum of the parts in many chamber music settings, improvisation enhances the effect due to the ways in which musicians respond to the unpredictable stimuli of the other players as well as the ways in which the musicians contribute to the compositional material. Sarah also demonstrates the emergent property of improvisation in the way she described her experience performing an improvised solo (2:55-3:56 in **Audio example 6.6**):

> I enjoyed the extra buzz [improvisation] gave me in performances as I never quite knew what I was going to play. I feel I got better at this section as I got more comfortable with the group – able to try out more things and more comfortable playing around with tempo, sound quality etc. Also, it was a dialogue with Alice, so the more we played together, the more we were able to bounce off each other.[193]

As well as demonstrating emergent properties in this account of *tbb3* through improvising within a group, the improvisational nature of the piece opened up

[193] Email correspondence from SH to AB, 5 October 2015.

possibilities for shared leadership. As the arranger and contact with the original collaboration (*tbb1* and *tbb2*), I had the role of leading the initial rehearsals, but as the players became more familiar and confident with the material, the leadership of rehearsals opened up and became increasingly dispersed around the group, as explained below:

> In a way we worked in a similar way to a traditional string quartet – co-operatively making decisions on how [we] wanted to perform the piece and bring the notes on the page to life […] It was a lively group – everyone was up for contributing and getting stuck in! […] A lot of creative development happened though listening, playing and reacting.[194]

This way of working can be viewed from Hayward's point of view as a transition from a top-down to a bottom-up way of working, where the group develops a system of self-organisation.

This emergent 'self' in the group had inevitable effects on the music and musicians, which will now be discussed. Feedback mechanisms in *tbb3* are evident in two main ways: first in the way in which the musicians responded to each other in the passages where cue-based responses bounced between the four players, and second, in forward and reverse feedback loops between *tbb1* and *tbb3*. The three musicians initially tended towards using the recordings of *tbb1* and *tbb2* as an entry point to understanding the piece.[195] Through the course of the rehearsals, I encouraged the musicians to respond in their own ways rather than imitating *tbb1* and *tbb2*, therefore managing a balance between reacting to the stimulus of the recordings versus forging new ways of responding to the score. Drawing on musical experiences and styles outside *tbb*, such as the

[194] Email correspondence from SH to AB, 5 October 2015.
[195] The recordings were available online, but were not sent to the musicians to listen to in preparation for the project.

example given earlier of Scottish folk music, expanded the field of feedback loops, while also partly restricting the input and influence of *tbb1* into *tbb3* (see Figure 6.8, red arrows) with the aim of creating a rendition that opened up new possibilities for *tbb*.

The performance of *tbb3* enhanced my own concept and performance of *tbb* through being able to interact with the playing and energy of the other musicians, in comparison to versions 1 and 2. This was evident through performing *tbb1* and *tbb3* in the same concert (The Forge, November 2013), as illustrated by the feedback loops shown in Figure 6.8.

Red arrows: loops feeding into *tbb3*
Blue arrow: loop feeding into *tbb1*

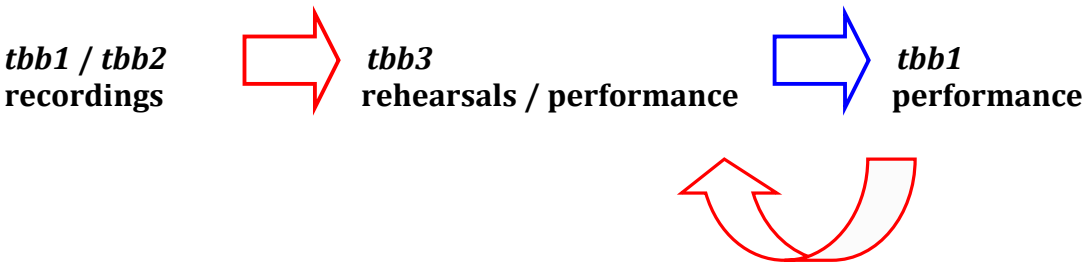


Figure 6.8. Diagram of feedback loops between the three versions of *tbb.*

For example, Eugene Feygelson's approach to his solo (score shown in Figure 6.7) affected my delivery of the equivalent material in *tbb1*. To look in more detail at the feedback mechanisms, I have made a comparison of the same material in recordings that represent each of the stages outlined in the diagram above:

- the melody from rehearsal Figure D of *tbb1* (see score shown in Figure 6.9 below and 2:42-3:42 in **Audio example 6.1**[196]);

[196] Note that this is the recording from September 2011.

- the melody improvised and performed by Eugene in *tbb3*, based on material from Figure D of *tbb1* (see score shown in Figure 6.7 and 5:21-6:16 in **Audio example 6.6**);
- a live recording of Figure D in *tbb1* (heard in **Audio example 6.7**) from the concert at The Forge where *tbb1* was performed alongside *tbb3*.
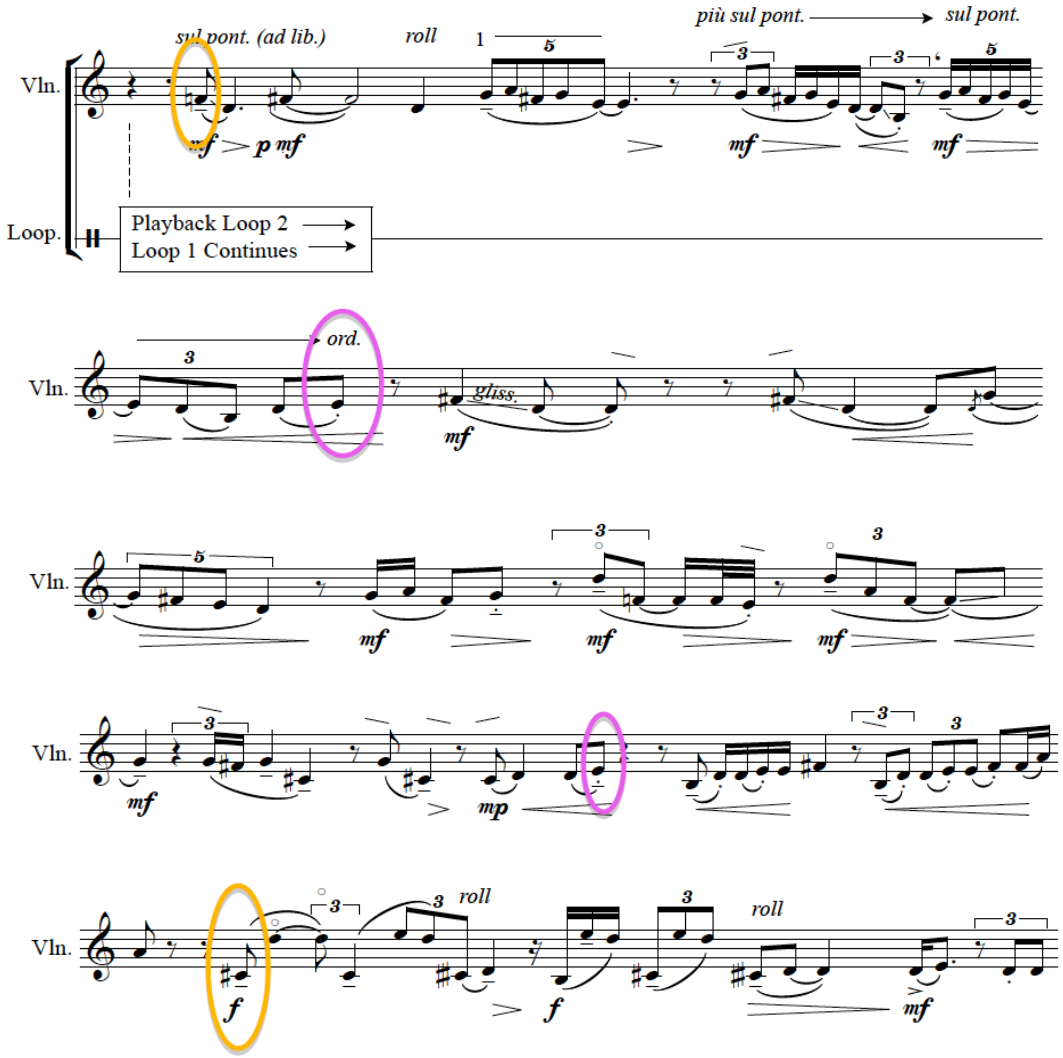


Figure 6.9. *the bond between,* score of *tbb1*, rehearsal Figure D (Szymanek 2011: 5).

In this melody, Eugene used a sharp attack with accents at the beginning of notes, for example on the first note (F natural, **Audio example 6.6**, 5:21) and the

C sharps at the beginning of section iii (**Audio example 6.6**, 5:54). Listening to the equivalent phrases in *tbb1*, shows how this effect made its way into my interpretation of this section, as shown circled in orange in Figure 6.9: the *tenuto* lines in the score have been treated as an emphasis or lean into the note in the September 2011 recording (**Audio example 6.1**, 0.52 for example), but were played as accents (**Audio example 6.7**, 0:47 for example) in response to *tbb3*. Another characteristic from Eugene's playing that fed back into *tbb1* was the exaggeration of the *staccato* markings (as well as additional *staccato* notes and the use of *pizzicato* heard at 5:33 and 6:01 respectively in **Audio example 6.6**), which were played in a more delicate way in the September 2011 recording. Listening to the recording of *tbb1* from The Forge demonstrates how I reconsidered my interpretation of the *staccato* markings, shown by a purple circle in Figure 6.9, with an increased *crescendo* and abrupt ending to the *staccato* Es that are circled (**Audio example 6.1**, 0:19 and 0:44 where the vibrato sustains the note; **Audio example 6.7**, 0:18 and 0:44). The more theatrical approach, initiated by Eugene's improvisation, provides more contrast within *tbb*, with melodies that stand out to a greater extent from the background of the loop pedals. Bringing shorter articulation into this melody breaks up the predominantly *legato* material of the rest of the piece and enhances the textural ideas that Rob and I experimented with in the early stages of the collaboration, thus opening up a 'new personal insight' (John-Steiner 2000: 198), or a new toolbox from which I can approach *tbb1*.

This case study has demonstrated the ways in which musicians earn their way into a piece of music through rehearsals and improvisatory exchanges and how

this group process, which can be identified as collaborative emergence, has ramifications for creativity. Improvisatory elements of collaboration present an emphasised platform for creativity due to a reduced default playing style within any given genre. The account of Sarah as a participant has exposed a few points of creativity that materialised throughout the collaborative process: firstly, the emergence from individual to group level of playing, which can be represented by Aristotle's statement; second, the rehearsing of improvisatory passages as a platform for emergent creativity; and third, the notion of the group 'self', which developed through a model of shared leadership. The implications of my observations contradict Sawyer's claims that ritualised practice in groups reduces the creative input of the individual. While Sawyer's claims may be valid in certain situations (especially given that his musical background is in jazz, which I have little experience in), Sarah's perspective, along with my experiences in *tbb*, present a case where the ritualised practice of improvisation opens up a space that allows creative ideas to emerge from the musicians and group.

6.7. Conclusions

This chapter has exposed points in creative collaboration where improvisation opened up complex relationships between musicians. On the one hand, *tbb* and *Recitations* have demonstrated the extent to which creative practice is framed and governed by the ways of knowing within which musicians train (for example: institutions, teaching traditions and the division of labour between composer and performer). Learning processes, roles and hierarchies all play a part in the workings between both teacher and student, and composer and performer – seen here broadly within the context of Western contemporary

classical music. On the other hand, the involvement of Karnatic violin techniques in these London-based case studies highlights the fact that the frameworks that musicians work within are more fluid than the institutions for, and terms of, composer and performer suggest. The fact that performers have greater freedom to improvise when the limits are narrower (as with the example of scordatura) invites a reconsidered perspective on the creative role of the performer. With this in mind, performer's creativity can be understood as inherently part of their practice, but often overlooked in the traditional composer-performer model. Cultural exchange further blurs the boundaries between collaborators, drawing attention to social and psychological shifts that occur when new knowledge is introduced into a collaborative setting.

The group version of *tbb* has shown points of creativity that have emerged during improvisatory processes through my investigations of higher and lower level emergent properties, bottom-up aggregations, levels of self-organisation and feedback mechanisms. Karnatic vocalists (and sisters) Ranjani and Gayatri have described these moments of creativity as a 'feeling of rightness' that they have for each other when performing together, which leads to a sense of 'uniqueness' brought about through improvisation. In an interview on BBC Radio 3, Ranjani claims that:

> I believe that there should be a lot of synergy. That the sum of both of us should be more than the [parts] – two plus two should not be four, but more than four, more than five; so that's what we always strive to achieve. (Kathari 2015)

Ranjani's description of collaborative emergence supports the notion that emergence is the 'unifying thread underlying […] creativity theory' (Sawyer

2003a: 13). It is the emergence of the group self, that represents the co-determined factors of a shift in the distribution of creativity. At the heart of my discussions, improvisatory processes have proved pivotal in the dissemination and mediation of knowledge – in this case the knowledge of Karnatic violin techniques that I am tracing throughout my case studies. By situating the discussions of *tbb* and *Recitations* around improvisation in collaborative practice, I have demonstrated the ways in which improvisatory processes permeate musical working relationships and performance – and the fact that these processes cannot be ignored (see Payne 2015: 271). At the core of collaborative practice, improvisation is bound up in the entanglement of all these concepts, thus supporting the notion that improvisation is the 'bedrock of musical creativity' (Bailey 1992: xiii).

Chapter 7

Group creative practice in London

The focus for this chapter is situated in a London context where Karnatic violin techniques represent one element in a network of creative exchanges within group collaborations. My field of enquiry addresses collaborative creativity and the role that Karnatic violin techniques can play in groups that are constantly engaged with the exchange of micro-cultures. The term micro-culture highlights the many social and cultural flows that exist within the context of London collaborative practice – examined in the light of Born's four planes of social mediation (2012: 266-7). I investigate a small part of the creative process that links back to my Karnatic violin lessons as a way of addressing broader questions about creative collaboration and cultural exchange. In particular, I focus on collective creative knowledge and the dynamic processes by which that arises from various sources of personal knowledge. In contrast to *the bond between* and *Recitations*, the two case studies discussed in this chapter have a more distant (and sometimes questionable) affiliation with Karnatic violin playing, as this was not part of the primary creative process.

The focus of this chapter lies in two central questions:

(1) How do different group models of creative collaboration contribute to our understanding of the mediation and dissemination of musical knowledge?

(2) What insights can theories of social mediation offer for understanding cultural exchange?

In considering these and other perspectives, I focus on group improvisation, in varying formats and configurations, as a way of tracing and analysing cultural exchange. The role that Karnatic violin techniques and broader notions of shared knowledge have played – indirectly and often implicitly –provides a lens for further examining social and cultural interactions between musicians. How might Karnatic violin techniques play a role in the meeting of musical traditions? Is it possible to negotiate cultural difference through a more global set of musical skills? How does my own role shift throughout these case studies and how might this affect the group dynamics?

Studies of musical collaboration tend to focus on working relationships between a composer and performer and are often concerned with the finished product, which, within the Western classical tradition, has historically constituted a written score. Having set out the recent trend towards an understanding of music as performance in Chapter 2 (see Talbot 2000, Rink 2004 and Cook 2013a), my research thus far has examined collaborative partnerships in learning and working environments. Looking at creativity in collaborative practice, Sawyer's work charts a move away from the individualistic tendencies of creativity studies (see Sawyer and DeZutter 2009), towards a focus on group creativity as a way of understanding the social, collaborative and emergent properties of creative practice (Sawyer 2003b).[197] Group creativity can be understood fundamentally as a social phenomenon, where 'even apparently solitary creative activities have a pronounced social dimension' (Glăveanu 2011: 481). Two forms of creative collaboration have been identified by Vlad-Petre

[197] See Chapter 6 for more on Sawyer's work.

Glăveanu: collaborative working between two or more individuals working in partnership on a common activity; and group creative tasks, which are delegated between individuals who are not necessarily 'working together' in the usual sense of collaboration (2011: 480-1).[198] Emily Payne draws on Glăveanu's definitions of collective creativity, while adding a third: distributed creativity (2015: 35; for distributed creativity see Clarke et al. 2013 and Clarke and Doffman 2017).

7.1. Social mediation within group creative practice

> From a sociocultural perspective, creativity is considered social in nature and located in the space "in between" self and others. (Glăveanu 2011: 480)

If creativity is considered social in nature, how does this help us to understand what is going on in group music making? And, as this chapter is primarily concerned with groups, what is meant by group creativity? Drawing on the definition of the word 'group' from the American Heritage Dictionary, Sawyer states that

> Performing groups are often called *ensembles* […] The term derives from the Latin roots *in* and *simul.* 'in (or at) the same time'. The defining features of group creativity are that it involves two or more people, creating together at the same time. (2003b: 4)

In terms of process, Sawyer identifies improvisation, emergence and interaction as the key characteristics of group creativity (Sawyer 2003b: 180).

[198] See Chapter 1 for a definition of collaboration.

A criticism of Sawyer's work that I have raised elsewhere in the thesis[199] is his failure to recognise the more implicit and nonverbal processes that are embedded in group creative practice – as well as in its constituent parts (including in improvisation). Although Sawyer's focus on group creativity is an important counter to the individualistic approaches to creativity that have tended to dominate, perhaps moving into a more social framework can offer further insight – as proposed in Glăveanu's statement at the beginning of this section. What happens in the space in between the self and others? Case studies 5 and 6 engage with the interactional processes between people, continents, time, technology, objects, culture and many more factors at play. Rather than separating the study of music from the study of its social form, Georgina Born's framework for 'a recognition that music exists in and through its complex and shifting mediations' (2005: 33) offers possibilities for understanding the entangled and distributed nature of group creativity.

Having outlined an integrated view of improvisation in Chapter 6, I now draw on the work of Born who offers a perspective specifically in terms of social relations, and which provides an important insight into group creative practice (Born 2005, 2010, 2012). She explains:

> Music is perhaps the paradigmatic multiply-mediated, immaterial and material, fluid quasi-object, in which subjects and objects collide and intermingle […] Music also takes myriad social forms […] It produces its own varied social relations – in performance, in musical associations and ensembles, in the musical division of labour. (Born 2005: 7)

In particular, Born proposes that the social structures, exchanges and interactions involved in improvisatory music making can be understood from a

[199] See Chapter 6 for a more detailed discussion about Sawyer's writing on improvisation.

perspective of social mediation – where 'mediation is conceived as a two-way or co-productive process' (2017: 33) and these 'two-way interrelations [are integral] between music and social life' (2005: 13).

Theories of mediation initially proposed by Theodor Adorno (1973), and later taken up in the work of Will Straw (1991), Alfred Gell (1998), Tia DeNora (2000) and Alfred Hennion (2003), have been central to the development of critical musicology and the cultural study of music (Born 2005: 11). In her 2005 article about musical mediation, Born sets out an understanding of mediation as 'the negotiation of difference' – a move away from the modernist vision of cultural unity and universality that fails to engage with the surrounding world (2005: 10). Claiming that modernist perspectives (especially those relating to multiculturalism) lack consideration for individual ontologies (Born 2005: 11), Born draws on DeNora's understanding of music as a '"mediator" of the social' (DeNora 2000: 46) – a concept that is based on theories of affordance from perceptual psychology (2005: 13).

Born's concept of social mediation comprises 'sonic, discursive, visual, artefactual, technological, social, temporal' elements (2005: 8). It is the recognition that music's mediation can involve both human and nonhuman agency (DeNora 2000: 67; Born 2012: 264) that draws attention to the limitations of the work of Sawyer and others. Instead, her 2005 article aims to 'rethink […] the 'universal' and cultural relativism, and to open up alternative models of inter-cultural diplomacy – of the negotiation of difference – in music' (2005: 11). Difference can be understood here on many levels, including class,

race, gender and sexuality, which all play a part of the division of labour in group music making. In taking the concept of musical mediation forwards from a purely sociological realm, Born suggests

> that theories of mediation should move beyond the sphere of micro-social interactions and trace the historical trajectories of musical assemblages, reconnecting them to analyses of the macro-dynamics of cultural history and technological change. (2005: 34)

Drawing attention to the 'macro-dynamics of cultural history' provides a compelling framework for recognising the myriad inter-cultural and subcultural[200] exchanges in group creative practice (particularly pertinent in twenty-first century London).

Having constructed a broad understanding of musical mediation, Born's later work identifies four planes in which music's social mediation is comprised. The four planes are defined as follows:

(1) The socialities of musical performance and practice that play out within musical ensembles;

(2) The ways in which musical experiences develop and respond to 'imagined communities', 'virtual collectivities' and/or 'musical publics';

(3) The impact of wider forms of social identity including, but not limited to, 'class, race or ethnicity, gender or sexuality, nationality or locality';

(4) The role played by institutions that enable music's 'production, reproduction, and transformation' (Born 2012: 266-7; see also Born 2010: 232).

[200] See Born 2005 on South Asian subcultures in digitised music (: 29-30).

These 'four planes of music's social mediation are irreducible to one another and are articulated in contingent and nonlinear ways through relations of affordance, conditioning, or causality ' (Born 2012: 267). In essence, Born is calling for a 're-socialized music-making, one encapsulated in popular music's notion of the 'group'' (2005: 25), and which leaves behind the hierarchical assemblages that have often dominated discourse on groups (including individualistic theories of cognition and creativity, the work concept, and the notion of the 'composer-hero' (Born 2005: 26)).

A perspective that sanctions the multiply-mediated nature of music offers a way to identify and understand the scope and complexity of factors influencing group creative practice – and the ways in which they interact. In Born's words, theories of mediation

> offer a way of understanding […] how music exists as a decentred and distributed object, with changing interrelations between its component mediations. These perspectives reveal music to be a medium that makes mutable some of the central dualisms of Western metaphysics: the separation of subject from object, authentic from artificial, present from part, individual from collectivity. (2005: 33)

One key aspect of social mediation foregrounds the following discussion in relation to my case studies: investigating where mediation can act as 'diplomacy, as the negotiation between apparently incommensurable worlds' in collaborative cultural exchange (Born 2005: 11).

Viewing cultural exchange involving Karnatic violin techniques from a perspective of social mediation can begin to shed light on what is exchanged between people working in creative group settings. This chapter focuses on two

case studies, in which I examine the collaborative process as a platform for broader flows of improvisation and creativity. This is followed by a discussion drawing on theories of social mediation as way to understand some of the layers of creative and social relations that inevitably and invariably occur in group collaborative practice.

7.2. Case study 5: *Elephant of the clouds* (2018) with Jeremy Thurlow, Dr K Sextet, Moumita Mitra and Sayak Barua[201]

Background to the collaboration

The collaboration between composer Jeremy Thurlow, Dr K Sextet (hereafter referred to as Dr K), Moumita Mitra and Sayak Barua was initiated by a discussion in 2014 that I had with Jeremy prior to his first trip to India during which he worked with two Hindustani musicians in Kolkata. Jeremy explains:

> The piece stems from my experience of visiting Kolkata in 2015 and of working with some wonderful musicians there. You kindly discussed your own musical experiences there with me before I left, so it's exciting to be able to join all these strands together.[202]

An initial aim was for this project to exist in two 'twin' versions: the first performance in the UK with Dr K and recorded samples of the Hindustani musicians; and the second bringing the musicians with whom Jeremy had worked with in Kolkata together with members of Dr K and recorded samples featuring the missing instruments from Dr K for a performance in India.[203] As

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[201] Dr K Sextet are grateful to the following trusts for their generous support towards *Elephant of the clouds:* RVW Trust and Hinrichsen Foundation for funding the commission of this work; the Oxford Chamber Music Society, Mr and Mrs J A Pye's Charitable Settlement and the Cavatina Music Trust for supporting the première performance on 15 April 2018 at the Holywell Music Room, Oxford; and the Melos Trust for funding the second performance on 23 November 2018 at Robinson College Chapel, Cambridge.

[202] Email correspondence (E2) from JT to AB, 12 December 2016.

[203] Email correspondence (E2) from JT to AB, 12 December 2016.

this second phase has not yet come to fruition, this account is solely based on the UK phase of the project, and raises questions relating to cultural exchange that are likely to be addressed and integrated into the work to a greater extent following a future performance in India.

Dr K commissioned *Elephant of the clouds* (hereafter referred to as *EOTC*) for a concert set up by the Oxford Chamber Music Society for 15 April 2018, followed by a second performance in Cambridge on 23 November 2018 (**Audio example 7.1**).[204] Dr K is an un-conducted chamber group comprising flute, clarinet, violin, cello, piano and percussion that specialises in performing contemporary classical music, commissioning new works and working closely with composers in workshop settings.[205] My role within Dr K is as the violinist; however, in choosing to include *EOTC* as a case study for this thesis, I became more closely involved in the negotiations between the group and the composer as well as occupying the role of researcher.[206] The primary material on which this case study is based consists of four components: i) ten hours of audio recordings documenting the rehearsals; ii) an audio recording of the second performance; iii) approximately three hours of recorded interview discussions between myself

[204] The programme for both concerts consisted of contemporary classical music based around the theme of story telling, as set out in the introduction to the programme notes: 'All the works in this afternoon's programme are united by a story telling focus. The stories they tell are drawn from across the globe; tales of struggle, turbulence and migration; musical and rhythmic exploration from a variety of cultural backgrounds; stories told by and for children; and tales of great contrast, from dramatic, mythical and fantastical narratives through to the most gentle of lullabies' (Wilson 2018: 1).

[205] The members of the group all trained and work within the Western classical music tradition with music that tends to be notated (including graphic scores).

[206] Dr K Sextet was set up by Alex Wilson (pianist) in 2009; I joined the group in 2013 – see Appendix I for the group biography. Alex manages the group and schedules the rehearsals and all six musicians participate in the creative decisions and negotiations during rehearsals. While there have been several changes to the personnel of the group, the current members have all worked together for at least three years and have established and comfortable working relationships.

and individual musicians from the ensemble; and iv) email correspondence between Jeremy and pianist Alex Wilson and/or myself on behalf of the group.

EOTC lasts approximately 16 minutes and is scored for the full sextet with the clarinettist playing bass clarinet and the percussionist playing marímbula (rumba box), marimba, tubular bells and mark tree. In addition to the live ensemble, there are six pre-recorded samples that are activated by the pianist using a laptop. Jeremy explains:

> The point of the pre-recorded electro-acoustic tracks is to integrate fragments of recorded playing/singing from two fine musicians I worked with in Kolkata last year – a singer and a *sarod* player.[207]

The personnel for *EOTC* are: composer Jeremy Thurlow (JT); Hindustani vocalist Moumita Mitra (MM); *sarod* player Sayak Barua (SB); and Dr K Sextet (Dr K) comprising flautist Ilze Ikse (II), clarinettist George Sleightholme (GS; who is a regular dep. for Jessie Grimes), myself as the violinist (AB), cellist Alice Murray (ACM) for performance 1, cellist Anna Menzies (AM) for performance 2, pianist Alex Wilson (AW) and percussionist Joseph (Joe) Richards (JR). Table 7.1 outlines the main events for *EOTC:*

[207] Email correspondence (E2) from JT to AB, 12 December 2016. The singer and *sarod* player are Moumita Mitra and Sayak Barua, respectively, who are both based in Kolkata, West Bengal.

Date	Event	Location	Personnel	Event code[208]
02/11/14	General discussion about music in Kolkata*	Jeremy's office, Robinson College, Cambridge	JT / AB	M1
Jan 2015	Workshops and recordings of samples*	Kolkata	JT / MM / SB	W1
Feb-Mar 2015	Email correspondence – initial ideas for collaboration	N/A	JT / AB	E1
Oct-Dec 2016	Email correspondence following confirmation of a concert date	N/A	JT / AB	E2
13/02/17	Discussions about the collaboration*	Robinson College canteen, Cambridge	JT / AB	M2
09/02/18	First part of the score received	N/A	JT / AW	E3
22/02/18	Complete score received	N/A	JT / AW / AB	E4
21-22/03/18	Initial rehearsals – without samples	Private rehearsal space, London	Dr K	R1, R2
11/04/18	Samples received from JT	N/A	JT / AW	E5
11/04/18	Rehearsals: with samples and JT	City Lit, London	JT / Dr K	W2
11/04/18	Interview with JT	City Lit, London	JT / AB	I1
12/04/18	Revised pdf score received from JT	N/A	JT / AW	E6
12/04/18	Final rehearsals: without JT	Private rehearsal space, London	Dr K	R3
15/04/18	Pre-concert rehearsal	Wadham College, Oxford	JT / Dr K	R4-P1
15/04/18	Première performance, Oxford Chamber Music Society	Holywell Music Room, Oxford	JT (conductor) / Dr K / audience	P1
15/04/18	Informal discussion assessing the	Holywell Music Room,	JT / AB	M3

[208] The event codes are: E=email correspondence, I=interview, M=meeting, P=performance, R=rehearsal, W=workshop.

	performance*	Oxford		
07/06/18	Interview with AW	By telephone	AW / AB	I2
10/06/18	Interview with JR	By telephone	JR / AB	I3
26/06/18	Interview with AM	Green Park, London	ACM / AB	I4
28/06/18	Interview with GS	Private rehearsal space, London	GS / AB	I5
23/11/18	Second performance	Robinson College Chapel, Cambridge	JT (conductor) / Dr K / audience	P2
Forthcoming	Workshops and performance with Hindustani musicians and members from Dr K	Kolkata	JT / MM / SB / members from Dr K / audience	W3, R5, P3

Table 7.1. Timeline of events for *Elephant of the clouds.*
The data was recorded by audio with the exception of the events marked with an asterisk*, which were not possible to record for logistical reasons or due to the informal nature of the conversation not intentionally being part of the research project.

Over the course of the first workshop session with Jeremy (W2), he began to direct the rehearsals, which then continued for the remaining rehearsal time.[209] Alex Wilson noted that '[Jeremy] had considered and knew what he was after [which] was nice. And he was quite detailed in the play-through'.[210] In the last thirty minutes of the group workshop (W2), Joe Richards (percussionist) proposed that Jeremy should conduct the piece; this addressed some of the difficulties in co-ordinating the six parts without a conductor, especially given the time constraints and plans for a revised score for the following day (the day of the final rehearsal).

[209] There are a number of factors that might have impacted Jeremy's rehearsal leadership: namely, the time constraints of preparing a new piece for performance in one five-hour workshop; Dr K not having one person who leads the rehearsal process; and also a difference in age and experience.
[210] Interview (I2), 7 June 2018.

7.3. Inside-/outside-the-room

As a principally un-conducted ensemble, the rehearsal process with Dr K broadly fits with a Western classical chamber music model where all the members of the group are part of the dialogue. For this project, Jeremy sent a complete score to Dr K ahead of the first rehearsals for *EOTC* (E4). Due to the practical constraints of rehearsal time and funding, there was only one workshop[211] session (W2) – which is significantly less time than in my other case studies. This chapter focuses on the group dynamics when working with Jeremy in the workshop session (W2) and asks how the musicians in the rehearsal room responded to and interacted with the recorded samples: to what extent was this an exchange of musical traditions?

In an interview after the première performance, Joe described the experience of playing live with recorded samples as being as if the music was taking place in 'two rooms': the live sextet in one space and the Hindustani musicians, by virtue of the recordings, in another room.[212] In the discussions that follow, I use Joe's metaphor of the two rooms to represent the interplay and tensions between what was going on in the rehearsal room (and subsequently the concert hall) and the perceived interaction with the musicians in the recordings. The notion of being 'inside-/outside-the-room' has been used elsewhere to identify and analyse different components of the collaborative process: notable examples include Clarke et al. (2016: 142-4) and Dueck (2013: 91-3). To summarise,

[211] I refer to this session as a workshop, rather than a rehearsal, as it was primarily concerned with testing out the composition in terms of the creative material, technical facility of the individual parts and the practicalities of the ensemble writing. W2 did also include a proportion of rehearsal time, partly due to its close proximity to the première performance.
[212] Interview (I3), 13 June 2018.

'inside-the-room' refers to a mutual understanding between collaborators that is 'enabled by a fund of shared knowledge and techniques' (Dueck 2013: 92). Through face-to-face interaction, collaborators cultivate an insider's knowledge, or a 'restricted code' (Clarke et al. 2016: 144) that is not apparent to those not involved in the primary creative process. 'Outside-the-room' constitutes a 'move towards publicness' – an imagined idea that musicians prepare for by building 'a shared world for the project to inhabit' involving 'persons and practices outside the room' (Clarke et al. 2016: 143-4, 160). In an article about the musical publics in jazz groups, Dueck writes that musicians 'orient their minds and bodies toward unknown others and cultivate practices that acknowledge and extend these social imaginaries' (Dueck 2013: 93). While the 'face-to-face' interactions shape a working relationship in a more immediate sense, everything 'outside-the-room' helps to situate the collaborators and their work within the wider field of their practice (Clarke et al. 2016: 144). Prompted by Joe's analogy of the 'two rooms' above, the following sections aim to frame some of the individual experiences from case study 5 within the framework of 'inside-/outside-the-room' set out here.

The relationship between the written score and the musical material in the recorded samples was not discussed with Jeremy during the rehearsals with Dr K. As the score is notated in standard staff notation (Score 7.1), the ensemble's approach centred around following – as well as questioning and clarifying – the composer's instructions, as is standard practice for a Dr K commission (and common practice in contemporary classical ensembles). In a one-to-one

discussion outside the rehearsal room, Jeremy explained to me the relationship between his composed material and the samples:

> I didn't want to do a very clichéd thing of making a kind of soft ambient setting over which the voice would just comfortably flow and it would feel like the purpose of [the live ensemble] would be to accompany the voice. I could do that, but first of all the voice doesn't need it – you can have tabla and tanpura and that's enough, that's the whole music. You don't need a Western string section or a flautist in addition to that, so it would be superfluous. And [second], it would be fake and phoney […] So I think I rather went to the opposite extreme and I thought, I'm going to write music for [Dr K Sextet], which is music in its own right.[213]

In moving away from what Jeremy describes as a 'clichéd' approach to writing for musicians from Indian and Western classical backgrounds, Jeremy's 'opposite extreme' results in a piece that feels as if the live and recorded performers inhabit two separate realms. There was nothing in the parts to indicate that the players should respond to the recordings, with the exception of the tubular bell part, which will be discussed later. This sense of division came about as a result of the physical separation between the two groups of musicians and the fact that the recorded medium facilitates a meeting of musics, independently of any meeting of people – a feature that I will explore in two examples in section 7.4.

One of Jeremy's aims for *EOTC* was for it to be a piece that could be performed by any contemporary Western classical ensemble without relying on specialist knowledge of Hindustani or Karnatic classical music, and in which the musicians could draw on their expertise 'doing what they are trained to do really, really well'.[214] Jeremy explains:

> The piece starts without thinking at all about how I'm going to bring in the Indian voice. There's the idea for the cello and clarinet, there's the

[213] Interview (I1), 11 April 2018.
[214] Interview (I1), 11 April 2018.

> idea for [… the violin and flute], and there's various other things. And then, what happens in the piece is a bit like what happened when I was composing it. I thought I would have to allow it to turn a corner at some point, which will surprise me and then suddenly find itself in a place where you could have an Indian voice coming out. And it's not that that's what it's building towards, it's more like […] turning a corner [and] suddenly there is this Indian voice.[215]

Jeremy's comments draw attention to the fact that his solution to the more problematic nature of cultural exchange was to write a piece in which both groups of musicians (Hindustani and Western classical) operate within their respective musical traditions.[216] The virtue of this approach to cultural exchange lies in the fact that both groups of musicians play within their area of expertise. But, it risks producing, what Jeremy called, 'a piece with sextet and a voice that's disembodied'.[217]

EOTC arguably presents an example of cultural non-exchange comprised of two relatively inflexible groups of musicians. On the one hand, Jeremy's approach of maintaining separate material for the Hindustani and Western classical musicians can be viewed as an exoticised use of recordings from India within a contemporary Western classical setting.[218] But, on the other hand, his explanations above suggest a recognition of the non-exchangeability of these two musical traditions in this particular context – a decision to build a piece that embraces cultural difference as a method for negotiating difference (to borrow

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[215] Interview (I1), 11 April 2018.
[216] The samples of Moumita Mitra and Sayak Barua were recorded by Jeremy in Kolkata, January 2015 (W1), and represent about an eighth of the material that Jeremy recorded. Although Moumita and Sayak worked on some collaborative compositions with Jeremy during this time, the recordings for *EOTC* were taken from an extended free improvisation without Jeremy's participation or a tanpura drone or any rhythmic accompaniment from a tabla (as is typical of Hindustani performance).
[217] Interview (I1), 11 April 2018.
[218] Described by Meintjes as a process of 'noncollaboration' in the 1986 album *Graceland,* by Paul Simon (1990: 47).

Born's term). While much of the piece can be seen as an example of cultural non-exchange, live performance demands a high degree of attentive listening and responding to the surroundings, resulting in an inevitable interaction – but arguably only in one direction – between the members of Dr K and vocalist Moumita Mitra. The possibilities for responding present a point of tension for the Dr K musicians since it was not made clear in the score, or in the workshop with Jeremy, whether we should respond to the recorded samples or not.[219]

To investigate further the relationship between the live material and recorded samples in relation to the notion of being inside-/outside-the-room, I have identified three categories based on the extent to which the ensemble interacts with the samples:

> **A:** there is no obvious link between the recorded sample and the live ensemble parts, which operate in different tempi and metres etc.
>
> **B:** there is no direct interaction between the sample and the ensemble, but the parts appear to work together to create a common texture.
>
> **C:** at least one musician in the ensemble relies on a cue from the sample and the part interacts to some extent with the recorded improvisation.

Table 7.2 provides an outline of the main features of the six samples along with the designated categories A, B and C (**Audio example 7.1**; Score 7.1 is the full score for *EOTC*).

[219] The plans for a second 'twin' version of the piece to take place in Kolkata, as outlined at the beginning of section 7.1, could provide a significantly different perspective for the questions I have raised here when there are members from Dr K, the Hindustani musicians and Jeremy working together in the same room.

Sample no.	**Bar no.**	**Audio time**	**Musicians**	**Category**	**An outline of how the score relates to the recorded samples[220]**
1	59	3:22	MM – voice	A	The ensemble and sample operate independently from each other
2	125	5:48	MM	A C	Bars 125-167: the sample and ensemble are independent from each other. Bar 160 onwards: a duet between the **voice** and **tubular bells**, which establishes the musical material for the next section.
3	201	9:38	MM	C	A loud section in the ensemble suddenly ends leaving only the recording of the solo **voice** (bar 202). The **violin** and **cello** have parts that interplay with the sample, interrupted by loud gestures in the bass clarinet.
4	221	10:48	MM	B	The ensemble material has continued from sample 3 and the voice in sample 4 later adds to this texture.
5	238	12:11	MM and SB – *sarod*	A – B	The ensemble and sample operate independently from each other until the *sarod* begins at 12.33 when there is a more unified section with the cello, bass clarinet and piano (from bar 244).
6	263	14.15	MM	B	The ensemble texture is divided into two pairs of instruments playing sustained chords: violin and flute in the upper registers and cello, bass clarinet and piano in the lower registers. The *sarod* part in the sample is a rhythmically free solo in the mid-range between the harmonies of the ensemble.

Table 7.2. Recorded samples in *EOTC.*

What impact does the incorporation of recordings from Hindustani musicians in India have on the ways in which Dr K work – both within the group, and with the recordings? There were no discussions in the rehearsals about how the

[220] The instruments highlighted in bold show the closest points of interaction between the live and recorded musicians and form the focus for the two examples in section 7.3.

recordings were made, who the musicians were, or how the sextet should or should not respond to the samples (with the exception of one example in my part that I examine in the next section). The workshop process for Dr K can be understood from the perspective of Born's planes of social mediation, where the imagined community and framework for working with contemporary classical music in the UK arguably provides a conceptual boundary for working within.[221] In particular, the ways in which the musicians prioritise the instructions in the written score restricts the ways in which they interact with the recorded material. For those musicians whose parts do not have any alignment with the samples[222] – Ilze (flute), George (clarinet) and Alex (piano) – the recordings did not have any impact on how they played (with the exception that Alex activates the samples from a laptop).[223] My own experience as a player was that the samples I have categorised as 'A' felt like more of a distraction as they had no obvious link – rhythmically or harmonically – to the complex material that is played by the ensemble at the same time.[224]

In an interview following the performance, Joe describes the relationship between Dr K and the Hindustani musicians:

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[221] I discuss later on my own tensions in relation to cultural exchange – both in a specific example and at a conceptual level for *EOTC*.

[222] To clarify what I mean here: although these musicians all play at the same time as the samples, their parts do not coordinate with, or take any cues from, the samples.

[223] George later commented 'I wasn't really aware of [Moumita and Sayak] much, musically, in the piece' (Interview (I3), 20 July 2018).

[224] One example occurs at the beginning of sample 2, bars 125-167 (5:48-7:26 in **Audio example 7.1**): here, there is a juxtaposition of two unrelated tempi with a metronomic crotchet at 104 BPM in the ensemble parts set simultaneously with a vocal melody, which has a relatively free and slow sense of a pulse. It is often more difficult to play in an unrelated pulse, out of time, within an ensemble than it is to play 'in time' (for a discussion on synchrony and entrainment in musical ensembles, see Clayton 2013: 20-24).

> The recording was something that occurred in [that] place in [that] time and that is one thing. And then everything that was happening in our room was something […] happening in this time and this place.[225]

Joe's concept of the piece operating in two rooms – displaced by location and time – closely corresponds to the discussions of inside-/outside-the-room from the opening of this section. On one hand, it is arguably all four of Born's planes of social mediation that are being invoked in this instance and consequently provoke an inside-/outside-the-room experience for the musicians. But on the other hand, Joe's example illustrates how real life examples do not necessarily fit into the neat framework of social mediation (as I discuss in the following section). While both groups of musicians simultaneously feel as if the other group is outside-the-room, the live musicians invariably respond to the recorded samples.

7.4. 'I go through to the other room': two examples

The sections of the piece where the composed music appears to draw on the sampled improvisations (category C and some sections without samples) offer a valuable point of investigation in terms of cultural interaction between the two groups – or rooms – of musicians. For the performers, these moments invited a different approach from that of working with other members of Dr K – one of close attention to the vocal samples where each musician could make creative decisions about whether or not to react to the samples, and how. For the purposes of the ensuing discussion I concentrate on two instances of integration between the live and recorded musicians: first, a fragment in the violin part lasting three bars (without a sample playing simultaneously); and second, a duet

[225] Interview (I3), 13 June 2018.

between sample 2 and the tubular bells. These two examples demonstrate how Joe (tubular bells) and I approached a similar situation from different perspectives based on our perceptions of, and experiences with, Hindustani classical music – and in my case, the parallels between Hindustani music and the Karnatic tradition.[226]

As the only member of the group who had met Jeremy and discussed the origins and objectives of the piece prior to the rehearsal on 11 April 2018, I had anticipated that the composed material would have had a closer resemblance to the improvised samples than was actually the case. But one phrase of the violin part immediately stood out when I played it for the first time: the fragment of a melody beginning with the final semiquaver of bar 73 and lasting for three bars, as highlighted in Figure 7.1.[227]

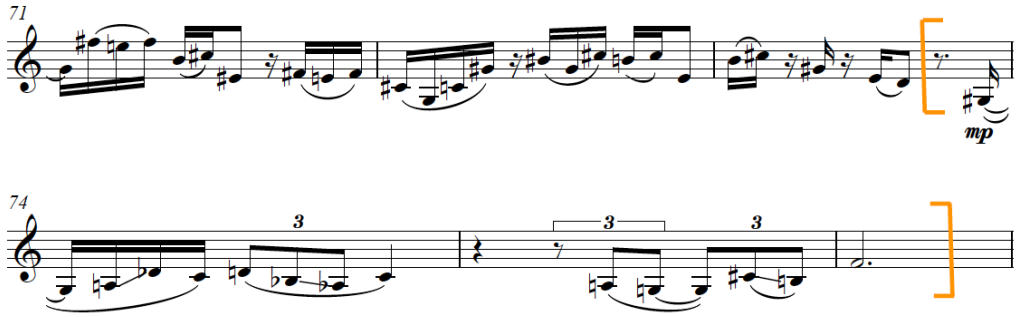


Figure 7.1. *EOTC* bars 71 – 76, violin part (Thurlow 2018: 3).

[226] Throughout this discussion I refer to both the Hindustani and Karnatic traditions more freely than in other parts of the thesis. Having set out a clear difference between the two musics in the opening chapters, case study 5 draws on both traditions and particularly on concepts and techniques, such as *glissandi,* which are fundamental to, and shared by, both Hindustani and Karnatic musicians. While there are stylistic differences in the ways in which Hindustani and Karnatic musicians approach *glissandi* (for example, Karnatic musicians often talk of the very slow *glissandi* that are characteristic of Hindustani music, as demonstrated in a lesson with Nagaraj on 5 January 2017), my points of reference here relate to my own experiences with both Hindustani and (in more depth) Karnatic musicians – as well as in response to the Hindustani musicians in the recorded samples.

[227] Incidentally, when I asked about how the writing for Dr K related to the recordings, Alex also perceived a shift in the material at this point of the piece; with the 'violin and voice and [where] you [the violin] were imitating, or reacting to the voice' (Interview (I2), 7 June 2018).

These three bars contrast with the rhythmical, repeating patterns that make up the majority of the violin part. Although there is no vocal sample at this point in the piece, the violin at bar 59 makes a fleeting reference back to sample 1. Here, the use of *glissandi* in the score calls for a different interpretation, for which I drew on my experiences with Karnatic violin playing. While *glissando* is a technique in violin traditions across the globe, my experiences with Karnatic violin playing informed my decisions about how to play these three bars – particularly the attention to detail for how to play *glissandi* that is central to both Hindustani and Karnatic music, as demonstrated in my initial lessons in Hindustani playing (discussed in the opening paragraphs of Chapter 1) and in Karnatic violin playing (Chapter 3).[228]

Looking at bars 73 to 76 in more detail, this section can be interpreted as two fragments, separated by the rests in bar 75.[229] There are many ways of interpreting this material, which I will not elaborate on except by way of tracing my own creative decisions. I decided to play the first fragment with an arch shape leading up to and then away from the D natural in bar 74, as annotated with a *crescendo, diminuendo* and *tenuto* line in Figure 7.2 below (4:13 in **Audio example 7.1**).

[228] The awareness of *glissandi* that I have learned through my studies with Karnatic violinists has informed my playing beyond music that is related to Indian classical music – and in contemporary classical music in particular. While *EOTC* makes a clear connection to Hindustani music, my creative decisions based on the symbol for *glissandi* were as much a response to the inadequacies of staff notation (where there is only one sign for a *glissandi* that can take multiple forms, as discussed in Chapter 3) as they were to musical style more generally.
[229] Fragment 1 being the final semiquaver G sharp of bar 73 through to the end of bar 74; and fragment 2 as bars 75 to 76.
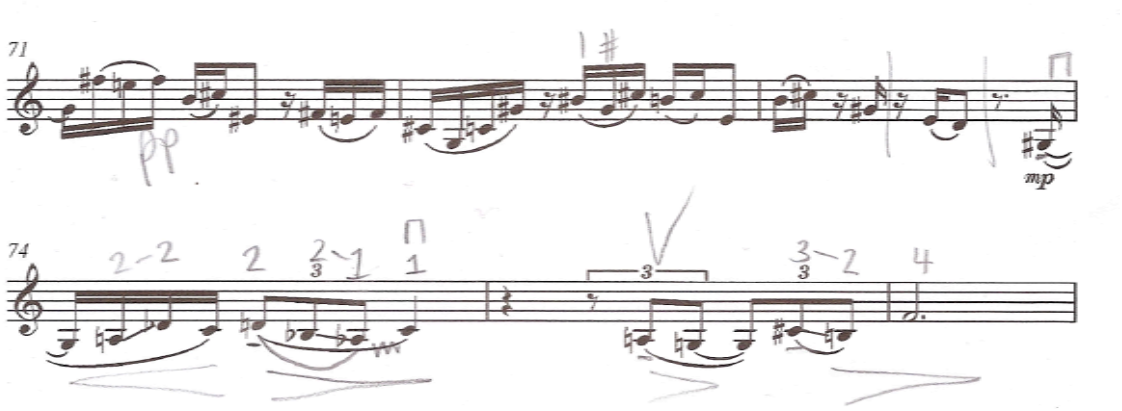


Figure 7.2. *EOTC* bars 71 – 76, violin part with performance annotations (Thurlow 2018: 3).

In fragment 2 there were two gestures, each with a *diminuendo* away from the A natural and C sharp respectively in bar 75. Moving to the dotted minim F in bar 76 was indicative of the ways in which Manjunath had taught me to approach a sustained note that is higher in pitch by getting quieter and maintaining a still tone with a slow bow speed. The choices of fingering for these *glissandi* are informed by block fingering (see Chapter 3), using the first and second fingers together as a block to roll the fingers from the B flat to A flat in bar 74; and the same effect with the second and third fingers for the C sharp to B natural in bar 75.

Whether Jeremy intended bars 73 to 76 in the violin part to be a stylistic reference to the Hindustani samples is debatable. Apart from the *glissandi* and slurs there are no other expressive instructions for these bars and Jeremy did not offer any further comments in the rehearsals. When questioned about this section, Jeremy did not make any suggestions or requests for how I should play

them. He described this violin line as 'whimsical',[230] leaving a range of options and freedom for my interpretation:

> Yes [bars 73 to 76 in the violin part] are a bit anonymous, you're right. I think at that point I was wondering if I might do more of that, but then I actually thought having done that, it's better to keep it a really light touch and a tiny hint in a couple of places. But mainly I want you to be […] yourself and not trying to copy […] the track.[231]

It is interesting that Jeremy shies away from referring directly to the Hindustani tradition in these comments, instead implying that he is talking about Hindustani music with his rather noncommittal 'I might do more of that'.

The final comment in the quote above reveals the dilemma faced by Dr K in this collaboration: the performer's interpretative freedom on the one hand ('be yourself') and following the composer's instructions on the other hand ('not […] copying the track'). As the following example with Joe illustrates, it can be a counterintuitive process not to respond to the sample. And at the same time, any circumstance in which a performer is invited to, or initiates, 'being yourself' brings a shift in the creative emphasis and authority of the musicians, as demonstrated in the case of *tbb* in the previous chapter. In my own case, while I am not an expert in the Karnatic tradition, the knowledge that I have built from studying with Karnatic violinists has gradually become part of my toolbox as a violinist, and has arguably become part of the notion of 'being myself'. Jeremy reflects on my situation:

> As it happens, you've spent time in India and you know how to play the violin with all that knowledge of Karnatic music […] But in general, I can't expect a violinist in an ensemble to bring that, whereas I can expect them to be very good at playing the violin in a [Western classical] ensemble.[232]

[230] Interview (I1), 11 April 2018.
[231] Interview (I1), 11 April 2018.
[232] Interview (I1), 11 April 2018.

At a practical level, Jeremy's comments highlight the fact that this piece is not written exclusively (or predominantly) for Dr K Sextet, in contrast to *tbb* and *Recitations* both of which use my specific way of playing the violin (that incorporates Karnatic violin techniques) as a central feature of the music. Was Jeremy's decision to write for a more generic ensemble of Western classical musicians a creative choice or a practical one to ensure that *EOTC* will and can easily be performed by more contemporary classical ensembles? It appears as though the practical consideration is significant for Jeremy – but he undoubtedly also has an artistic vision that was not explicitly expressed here, but was hinted at in reference to an 'opposite extreme' approach that avoids the 'clichéd' (from section 7.3) writing for Hindustani and Western classical musicians. Taking both the practical and artistic parameters for *EOTC* into consideration, the instrumental techniques in the score are all from the Western and contemporary classical traditions, without any influences from the Hindustani musicians in the samples. With this in mind, Jeremy's approach to cultural exchange can be seen as reminiscent of Yehudi Menuhin's predominantly Western classical tone and style in the example of *Rāga Piloo* with Ravi Shankar in Chapter 2.

I now turn to a different example that offers an alternative response to the recorded samples. The percussion part at letter I has the most explicit interaction with the improvised sample in the entire piece. As Joe explained, 'it felt like everything I was doing was sort of like an echo or a response to what was coming from the recording'.[233] The example below shows the point at which

[233] Interview (I3), 13 June 2018.

the tubular bell part takes a cue from Moumita's vocal line, as shown in Figure 7.3 where the vocal cue is notated by Jeremy (6:58 in **Audio example 7.1**).

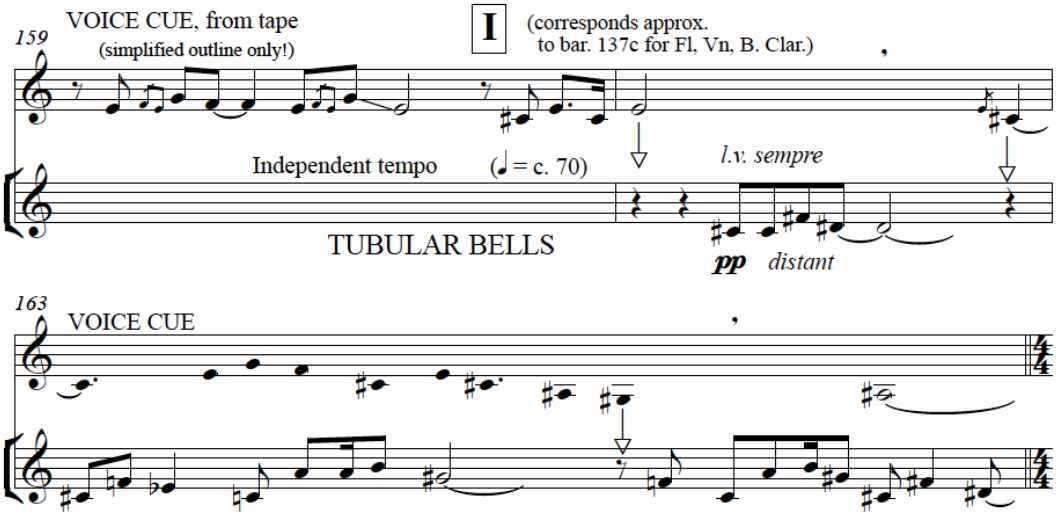


Figure 7.3. *EOTC* bar 159, percussion part (Thurlow 2018: 6).

Focusing on the entry at bar 163, Joe – who has no formal training in Hindustani (or Karnatic) music – explained how listening to the vocal cue significantly altered his interpretation of this phrase. Following each note from the beginning of bar 163, he explained: 'I imagine the C sharp as an upbeat and then the F natural ties to the E flat [… Then] I feel the accent on the C [natural] tied up to the A and then the accent on the semiquaver A tied up to the B'.[234] Joe further explained how without the vocal sample he would normally have emphasized the E flat and G sharp. But, the shape and direction of the vocal phrases offered a different approach in which the E flat and G sharp were not important notes in the phrase – as if they were tied onto and falling away from the previous notes.

Joe discussed his experience of performing alongside the samples of the Hindustani musicians as 'semi-polarised', sometimes working completely

[234] Interview (I3), 13 June 2018.

independently and at other times interacting, as in the example at letter I. In the following, he highlights some of the encounters between the two musical components:

> At times it was like [the two groups of musicians] just brushed against each other, those two entities just passed by each other […] and they were […] doing the same thing even though they were completely removed from each other. [Letter I] was the only moment that it felt like what I was doing was actually meant to be coming from in that place as opposed to our place. So as opposed to just brushing against it, I actually [became] a complete part of that. It was [as if] there's two rooms and they're both different and there's a door between them and sometimes people are getting closer; […] in that section I go through into the other room and then I come back for the rest of the piece.[235]

Joe's intuitive response to the Hindustani recordings suggests that his move between the two conceptual rooms is more permeable and flexible in real life examples than Born's theories of social mediation permit. Joe's example here draws attention to a process arguably common to music making irrespective of the musical and cultural tradition, where listening and responding inevitably lead to degrees of exchange – here only in one direction due to the Hindustani musicians being represented by a recording rather than in person.

These two examples provide an opportunity to consider some of the processes of creative collaboration more broadly – in this case, the ways in which musicians negotiate questions of cultural exchange. The example of the tubular bell part at letter I demonstrates how staff notation can misrepresent music that is not part of the Western classical tradition (as seen in the quote from Tagore in Chapter 5). Joe explains:

> You look at something on the page and you imagine how it would sound. [As] Indian vocal [music] is never written down, when it is written down

[235] Interview (I3), 13 June 2018.

> on a score, it looks very different to how it sounds. […] I saw the voice cues [and] they don't look how they sound, so then I was trying to play the bell parts not like they looked. I was trying to imagine [this section] out of context, off the page. [Jeremy] says to play it freely anyway, but you might think that that note's a little bit louder there or that note leads to that note. Or that note's not the end of the phrase, the end of the phrase is just slightly before and that's just falling off. I mean, without any kind of knowledge of how [the music in the samples] works, I was just trying to play it not how I would normally play it.[236]

The notion of playing 'off the page', in the context of Joe's response to Moumita's voice at letter I, emphasises the creative – and improvisatory – role of the performer when working with notated scores. The incongruity between the score and the vocal part here highlights how staff notation can sometimes afford creative potential for performers by virtue of its limitations.

Could more workshop time with Jeremy and Dr K have resolved some of the questions about how to interpret these passages? And might this also take away some of the performers' freedom? How could this material – and the way in which it is played – develop if and when the project is taken to Kolkata and the two groups of musicians work together, face-to-face? As with the example in the violin part above, Joe's creative decisions for the tubular bells at letter I create a different dynamic between the performers and composer. These moments where the performers interact more freely with the vocal improvisations in the samples arguably shift some of the musical authority away from the composer and towards the performers in question (Joe and Moumita in the case of letter I).

This section has demonstrated two responses to the samples where the Dr K musicians 'go through to the other room' (to use Joe's phrase) and interact with a

[236] Interview (I3), 13 June 2018.

recorded voice without ever meeting the musician in the recording. Whereas my interpretation draws on an element of shared – if limited – knowledge, Joe's approach demonstrates a response driven by his attentive and direct response to Moumita's voice in the recording. Without proposing a preference for either approach, these strategies for musicians working with recorded samples shed light on some of the questions and considerations that are ubiquitous in collaborative exchange – and which run throughout this thesis. While there is often an assumption that shared knowledge and understanding is a crucial part of collaborative practice, it can also be problematic for a number of reasons: for example, when tensions arise between tradition and innovation; and when assumptions are made about a musical practice without necessarily interrogating the creative decisions or process. Joe's tubular bell duet with Moumita's vocal recording demonstrates one possible way in which trained musicians who do not share the knowledge of a specific tradition can nonetheless interact by means of an immediate and intuitive response. It is the way in which such attentiveness emerges throughout group creative practice that I discuss with reference to Born's four planes of social mediation (2012: 266-7).

Social mediation in EOTC

It is debatable whether the recorded Hindustani musicians are really integrated into the group creative process when considering Sawyer's definition, which suggests that group creativity cannot be displaced across location and time. The level of interaction on the part of the Dr K musicians using improvisatory processes to respond to the Hindustani musicians calls for a reconsideration of

Sawyer's definition. In many ways *EOTC* amplifies the duality of two musical traditions by locating the musicians from each tradition in separate rooms. And at the same time, the rather obvious separation of two groups of musicians (by location, as much as medium, and musical material) allows a clearer insight into the emergence of the group socialities – the groups constituting live and recorded musicians.

Looking at social mediation, creative agency can arguably be seen as dispersed and channelled through all four planes, while constantly shifting. For example, in terms of Born's first plane, we can see it working in the roles that the musicians take: the division of labour between composer and performers, where the creative decisions of the players are at an interpretative level, such as the example of Joe's playing at letter I. In the second plane, Jeremy Thurlow and Dr K's working can be seen as operating within the imagined community of contemporary Western classical music, where projects are designed for specific musical publics and social behaviours underpin performances for both performers and audience (such as bowing and clapping, respectively, at the beginning and end of a concert). Turning to the third plane, the musicians (with the exception of Moumita Mitra and Sayak Barua who we did not work with in person) all share similar cultural and socio-economic backgrounds as Europeans who have trained in the Western classical tradition. This shared background arguably underpins much of the communication (both verbal and nonverbal) in collaborative creativity. In addition, as a relatively experienced composer, Jeremy's authoritative position can be understood in light of this third plane. Finally, the fourth plane draws attention to the wider social and cultural

institutions that shape creative collaboration: such as funding bodies and concert series.

Born's framework helps to understand some of the social dynamics present in *EOTC,* but Joe's example with the tubular bells at letter I arguably contradicts these relatively neat and distinct categories. In moving through to the other room, as Joe suggests, he demonstrates an intuitive response to the sense of shape and emphasis in Moumita's singing. Joe's insight highlights the inevitable and invariable ways in which musicians from different cultures can instinctively react to one another. This example presents a contrary perspective to working within an imagined community (the second plane), the macro social dynamics of class, race, ethnicity etc. (the third plane) and the institutional level (the fourth plane). Instead, listening to the recordings and moving 'off the page' (to use Joe's expression) creates a way of working with musicians irrespective of tradition, culture, ethnicity, language, race, class and many more factors. While such an observation does not necessarily resolve any of the tensions surrounding cultural exchange, it reveals some of the underlying, implicit and non-verbal ways in which musicians work together in creative collaboration.

7.5. Case study 6: *Bhairav* (2017) with iyatraQuartet

As the final case study, I turn to a group called iyatraQuartet comprising violin, cello, clarinets and percussion. The personnel are cellist Richard (Rich) Phillips (RP), clarinettist George Sleightholme (GS), percussionist Will Roberts (WR) and myself (AB) as the violinist. This ensemble provides an appropriate place to conclude and draw on the questions, processes and themes of the previous

chapters: improvisation, creativity and shared knowledge. The group process is focused on the notion of exchange and draws on many influences and experiences that develop through collaborative creativity – as well as in the individual members' own practice. As with the case study of *EOTC,* the example of *Bhairav* engages with multiple exchanges of micro-cultures and societies that can be understood through investigating the string playing linking back to the Karnatic tradition. For the purpose of the following discussion I trace the emergence of Karnatic violin techniques as a lens for viewing the creative process of iyatraQuartet more broadly.

As a co-authored[237] group that was established in 2012, iyatraQuartet provides a model for collaboration that has developed through an emphasis on the group process itself and is not intentionally modelled on any existing practice. The group's collaborative process is well established (which contrasts with the first-time working relationships that are central to my previous case studies[238]) and deeply embedded in the ethos of the music. Having grown out of a free improvisation group[239] the focus on improvisatory processes creates music that is partly fixed and partly free – and not notated. The members of iyatraQuartet have worked together and performed regularly over the past six years, releasing a debut album in 2015 with a second album due for release in April 2020.

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[237] I use the term co-authored when there is no specified leader for the group. While it is arguably impossible for all participants to make equal contributions to the creative process, co-authorship here refers to a distributed and constantly shifting process where all four members make decisions and take creative authorship at different points of the process.

[238] The collaborations with Rob and Jasmin (case studies 3 and 4) are first-time working relationships. In the case of Dr K, although the group has existed for nine years, this was our first time working with Jeremy Thurlow, as well as Moumita Mitra and Sayak Barua.

[239] This group included George and I, along with others, whilst we were postgraduate students at the Royal Academy of Music, London, 2009-2011.

An 'open room' process

The members of iyatraQuartet have all had formal training in the Western classical tradition and have individually studied and/or worked within a broad range of musical traditions in London and abroad. These include (but are not limited to) jazz, Latin percussion, Hindustani classical, Karnatic classical, Arabic classical, flamenco, British folk, Sudanese, contemporary classical and popular musics. With the aim of creating original music, the group is not classified by a specific genre or style of music. The group members describe the process as follows:

> WR: We've all had [musical] training, but we've never discussed the knowledge of a tradition, we see what evolves.[240]
>
> GS: We improvise and each come up with our own things and sometimes with suggestions to come up with material [for each other] and then we [develop the ideas] and think of it as a composition.[241]
>
> RP: Nothing's written down, it's a very collaborative experience and we all have to be in the room. We start with an idea that might be presented to the others in the group and then we'll play and then we'll talk, and then we'll play [again]. Then we'll say what we liked, or possibly what we didn't like, but it's a very free and open room. It's always very positive and basically an 'anything goes' […] atmosphere, which […] creates some really interesting results.[242]

In addition to these observations, I draw attention to the experimental nature of the group in i) testing out and pushing the technical potential of the instruments and individual players; and ii) experimenting with the creative process. The creative process sometimes evolves from a recognised initial idea, such as a melody, rhythm, mode, riff, instrument or general characteristic, and at other times solely from group improvisations – such as a melody composed by each player choosing one pitch each (a real example). The following extract from a

[240] Interview (i2), 18 July 2018.
[241] Interview (i3), 20 July 2018.
[242] Interview (i1), 16 July 2018.

session working on a piece called *Bhairav* (discussing the material from 4:30 to the end in **Audio example 7.2**) illustrates a typical – and often messy – rehearsal dialogue:

> GS: Yeah, it's basically us two [clarinet and percussion] sort of solo-ing
> RP: Yeah
> GS: High energy [Singing the bass clarinet line with WR tapping a beat]
> AB: It could cascade and then disintegrate
> WR: Suddenly it's gone all rhythmic![243]

I have adopted Rich's term of the 'open room' to illustrate the relatively free approach to creative expression in this group process, while also acting as a reference to the framework of inside-/outside-the-room from the previous section.[244]

7.6. A string sound in *Bhairav*

Turning to the way in which the strings work together, I now focus on one piece, which was created in 2017. *Bhairav* was devised during three workshop sessions and lasts approximately seven and a half minutes. It is for scordatura violin (see Figure 7.4), cello, bass clarinet and percussion (two Tibetan prayer bowls, a string of seven bells, frame drum, bodhran and cymbal).

[243] Workshop (w1), 12 July 2017.
[244] The metaphor of the rehearsal room was not incorporated in any interview questions or general discussions; these two references – by Joe from Dr K and Rich from iyatraQuartet (i1) – came about independently from each other.

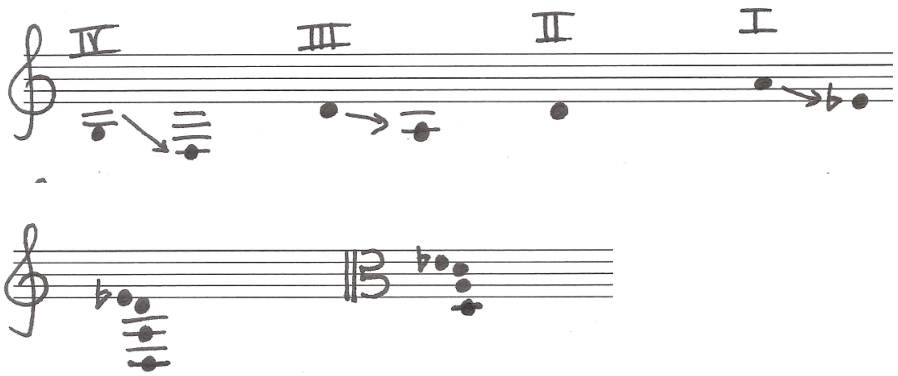


Figure 7.4. Scordatura violin for *Bhairav.*

This scordatura requires restringing a violin with G–D–D–A strings and then tuning the strings to D_3–A_3–D_4–$E♭_4$. Figure 7.4 shows the relation between each string and the tuning, followed by the scordatura in treble and alto clefs. The top string (I) is tuned to a low E flat that is closer to, but not precisely, an E three-quarters-flat. The scordatura is particularly audible at 0:01 in **Audio example 7.2** when the piece opens with the natural harmonics of the four open strings being plucked. This scordatura became part of the piece after experimenting with the restrung violin used in the second movement of *Recitations* (Chapter 6). Although the register is closer to that of a viola, the slackened strings of the violin produce a mellow tone quality that has become part of the character of the piece (and also favoured by Karnatic violinists for facilitating *glissandi*).

In terms of pitch, the string instruments play within a mode known as *Rāga Mayamalavagoula* in Karnatic music, also found in Hindustani music as *Rāga Bhairav* (as referred to in the title). The melody (beginning in the violin at 0:28 in **Audio example 7.2**) developed from a small fragment that was taught to me by *sitar* player and Hindustani vocalist Mehboob Nadeem in London. I played this fragment to Rich and we improvised around it, eventually settling on a

drawn out, slow melodic line based around a *glissando* over the interval of a descending augmented second (first heard in the violin at 0:33). From Rich's perspective: 'we passed the melody around a little bit and we discussed the form of that, taking bits of that melody each, but loosely as well, [so that] it would be quite free within the scale'.[245] Meanwhile, the bass clarinet-percussion groove (gradually emerging in the percussion from 3:33) evolved from an idea that George played in the first workshop, which he and Will worked on together. The table below shows an outline of events for *Bhairav.*

Date	**Event**	**Location**	**Personnel**	**Event code[246]**
12/07/17	Workshop, 1 hour: improvising around a melody and a groove	Private rehearsal space (PRS)	iyatraQuartet	w1
07/09/17	Workshop, 1 hr 30 mins: listening back and developing ideas from w1; experimenting with instruments and techniques; 3 versions of a complete piece	PRS	iyatraQuartet	w2
13/09/17	Workshop, 1 hr 15 mins: 4 versions of a complete piece; listening back to recordings and making creative decisions	PRS	iyatraQuartet	w3
07/10/17	Pre-concert rehearsal, 45 mins: reviewing and rehearsing the form of the piece	PRS	iyatraQuartet	r1-p1
07/10/17	Première performance (acoustic), Herne Hill Festival*	The Workshop, The Half Moon, London	iyatraQuartet / audience	p1
09/11/17	Post performance play	PRS	iyatraQuartet	r2

[245] Interview (i1), 16 July 2018.
[246] The event codes for case study 6 use lower case letters to differentiate from those for case study 5 (for Section 7.7 where both case studies are discussed): i=interview, p=performance, r=rehearsal, s=session, w=workshop.

	through (no changes)			
Nov 2017 – July 2018	7 performances of *Bhairav* (acoustic and amplified)	Various venues in London, Oxford and Sussex	iyatraQuartet / audience	p2-8
07/01/18	Rehearsal	PRS	iyatraQuartet	r3
14/01/18	Rehearsal	PRS	iyatraQuartet	r4
15/01/18	Live recording session (to be released as part of an album in 2019)**	Union Chapel, London	iyatraQuartet / Les Mommsen (LM)	s1
16/07/18	Interview with RP	PRS	RP / AB	i1
18/07/18	Interview with WR	PRS	WR / AB	i2
20/07/18	Interview with GS	PRS	GS / AB	i3
23/07/18	Mixing session for s1	Sound Network Ltd, Highgate Studios, London	iyatraQuartet / LM	s2

Table 7.3. Timeline of events for *Bhairav.*
The data was all recorded by audio with the exception of the première performance (p1)* where the recording device did not work and the recording session (s1)** where the individual takes were professionally recorded by sound engineer Les Mommsen, but without documenting the rehearsal time, discussions etc.

The way in which the group works in two pairs in this piece (violin-cello and bass clarinet-percussion) facilitates my focus on the string playing. George explains that these two micro-groups were a new concept for iyatraQuartet and were present from the start:

> I love that sense of these different energies coexisting, […] it's something that's part of everyday life. So when you're walking down the street and you're talking to someone, your feet are moving in time, but then you're talking in a different time. [… There are] all these different layers of rhythm that are happening all the time, but we're just not that conscious of them. [… In *Bhairav*] it is like [Will and I are] doing our thing and [Rich and Alice are] doing your thing. And I'm not sure if we're supporting you or if we're fighting you […] I think the main thing [that brings the two groups together is] intensity, but through different means. So you're

> intense in slowness and in direction, but our intensity comes from [the] driving pulse.[247]

The cello part is significant here as Rich takes on various different roles for different pieces of music; sometimes melodic and other times as a bass line working closely with the percussion. In the case of *Bhairav,* the violin and cello work together throughout the piece, predominantly playing melodic material in four formats: i) as solos, one after another (the violin beginning at 0:28 in **Audio example 7.2** followed by the cello from 1:41 to 4:23); ii) by improvising together (from 4:30 to 5:30); iii) in octave unison (from 5:31 to 6:35); and iv) as a hocketing effect using extended techniques (6:36 to the end of the piece).

How can the co-authored model of working contribute to our understanding of the mediation and dissipation of musical knowledge using the example of Karnatic violin techniques in the string sound? Establishing a string sound in *Bhairav* creates a toolbox of shared knowledge between Rich and myself that emerges through a combination of explicit and implicit interactions.[248] The use of Karnatic violin techniques results in a transfer of ideas, where my experiences with Karnatic violinists are passed on to Rich, but then feed back into my own playing, as I will discuss later on.

Following a discussion and some questions in the interviews, each musician listened to the complete recording of *Bhairav* (s1) and was asked to provide a commentary on what they are playing and how they respond to the group. The

[247] Interview (i3), 20 July 2018.
[248] String quartet playing provides a comparable example where string players work towards harnessing a group sound, while also retaining four distinct voices for particular passages and works (see Blum 1986 on the Guarneri Quartet).

data in the following table is taken from these retrospective accounts of the opening four minutes of the piece:

Timing	**Instrument**	**Action/technique**[249]	**Dialogue**[250]
0:01	Violin	*Pizzicato* harmonics	GS: That tuning […] sets the tone for the piece with the fact that [the *pizzicato* is] the open string [natural harmonics]. Immediately we're in that […] fairly dark tonality. That semitone!
0:19	Cello	*Pizzicato* strum	WR: That's Rich's flamenco bit! RP: I think I'd just been rehearsing with a flamenco guitarist and I really like all the flourishes […] I [felt as if I] needed to just break the tension [here].
0:33	Violin	Slow *glissando*	RP: It starts off very [*sul*] *tasto*, I think quite dusty in our lower registers, [like] a voice coming to life […] It was this dusty distant sound that […] we talked about.
0.39	Violin	Gliss/bow release	--
0:51	Violin	Slow *glissando*	RP: We talked about the slides being very slow and drawn out and that was very much a feature [of this piece]. GS: The feeling of that slide is it kind of disorientates your ear a little bit.
0:55	Violin	Wide, slow vibrato	GS: The really wide, slow vibrato. RP: I love the baggy vibrato, the really slow vibrato.
1:11	Violin	Gliss/bow release	GS: You can hear Rich doing that [sings gliss/bow release].
1:26	Violin	Wide, slow vibrato	--
1:43	Cello	Gliss/bow release	RP: Those sort of repeated [sings cello entry] when you slide down, is something I've

[249] See Chapter 2 for a discussion of the term technique. I have included a selection of the key techniques here and have not listed every slow *glissando,* for example, to avoid repetition. In addition, I acknowledge that my categories present a generalised version of the techniques in question and there is some variation between each rendition.

[250] Dialogue referring to string playing taken from interviews (i1), 16 July 2018; (i2), 18 July 2018; and (i3), 20 July 2018.

			heard you do lots – in *ālap* type improvisations.
1:55	Cello	Gliss/bow release	--
1:57	Cello	Slow *glissando*	RP: This scale we're playing in is very much like a lot of the Hofesh music that I've played, the Hofesh Shechter Dance Company.
2:32	Cello	Gliss/bow release	--
2.36	Cello	Slow *glissando*	RP: I keep coming back to that interval [the augmented second] and slide down, but otherwise, it's quite far from where we started.
2:39	Cello	Moderately slow vibrato	--
3:11	Cello	Moderately fast vibrato	--
3:14	Cello	Gliss/bow release	--
3:21	Cello	Fast vibrato	GS: As Rich climbs up the cello it becomes more and more intense.
3:47	Cello	Wide, fast vibrato	--
3:57	Cello	Fast vibrato	--

Table 7.4. List of key string techniques in *Bhairav* and retrospective responses: **Audio example 7.2,** 0:00-4:00 minutes.

The table above draws attention to several influences that appear in this opening section of *Bhairav*. Rich's references to a flamenco guitarist (which corresponds to 0:19 in **Audio example 7.2,**) and Hofesh Shechter Dance Company (1:57) demonstrate how the creation of a string sound is a constant flow and intricate web of new and familiar ways of playing that are exchanged and become part of the shared toolbox. At the same time, the frequency of gestures that relate to Karnatic violin playing is characteristic of this piece where the transfer of ideas mostly occurs in the direction of violin to cello rather than vice versa (beginning with the violin at 0:28 followed by the cello at 1:41).

In response to a question about the ways in which we have created a string sound for *Bhairav*, George and Rich independently commented:

> GS: The way Rich plays in this track is different to how he plays in other tracks, [… the Karnatic violin playing has] clearly affected the way he plays, which […] sounds great.[251]
>
> RP: I would definitely say that your playing has influenced mine and playing together so much [results in our sound] naturally merging somewhere in the middle.[252]

The influence of Karnatic violin techniques is particularly audible in the string sound of *Bhairav*, partly as the use of *Rāga Mayamalavagoula* as a modal framework for the piece provides a context that is conducive to Karnatic ways of playing string instruments. Three actions, or techniques, can be traced back to my Karnatic violin lessons and are identified in the table above as i) slow *glissandi,* ii) wide vibrato and, iii) gliss/bow release (my terminology). Dealing with each action individually, the following section explores the ways in which these techniques relate to my experiences with Karnatic violin playing and *gamakas* set out in Chapter 3.

Slow glissandi

Slow *glissandi* (introduced at 0:33 and 0:51 in the violin) are a repeating characteristic of *Bhairav* and frequently occur descending over the interval of an augmented second: *Ni* to *Dha* (C sharp to B flat) and *Ga to Ri* (F sharp to E flat).[253] While this gesture is a feature of both *Rāgas Mayamalavagoula* and *Bhairav,* the decision to slow down the *glissandi* was discussed in the workshops (w1 and w2) – as revealed in Rich's comment about the slow *glissando*: 'we talked about

[251] Interview (i3), 20 July 2018.
[252] Interview (i1), 16 July 2018.
[253] The *Sa* for *Bhairav* is D.

the slides being very slow'.[254] For example, in w2 I comment that 'the slides could be a bit slower'.[255] Having highlighted the multiple forms that *glissandi* can take in Karnatic violin playing in Chapter 3, the decision to stretch the descending augmented second *glissandi* is clearly informed by the attention to the pace of *glissandi* that I observed in Karnatic lessons (as well as in my initial lessons in Kolkata). For *Bhairav* the slow pace of the *glissandi* is an approach that I initiate in the dialogue of workshop w2 and which gradually becomes part of the shared knowledge for *Bhairav.* George's comments on the bass clarinet line beginning at 7:05 offer a perspective on the extent to which the slow *glissandi* are embedded in the whole piece:

> [This bass clarinet line is] based on the notes that I'm using earlier on. Everyone has a general downward feel, which is actually throughout the piece [sings the descending augmented second *glissando*], that downward swoop. It feels like at the end we all do [the downward swoop] in slow motion and the energy's just winding down, which led me to play [sings the bass clarinet end pattern].[256]

At this point of the piece Will also imitates the slow *glissando* with a thumb rub technique on the bodhran (at 7:03, 7:17 and 7:23). For the group, the slow *glissando* (which can arguably only be played in its entirety on the string instruments) offers a point of reference, or thread running through the piece, that helps to establish a creative identity for the music.

Wide vibrato

In contrast to the slow *glissando*, which featured in the rehearsal dialogue, the following two techniques were not a topic of the workshop discussions. Instead, it is the interviews with Rich and George that reveal how the wide vibrato and

[254] Interview (i1), 16 July 2018.
[255] Workshop (w2), 7 September 2017.
[256] Interview (i3), 20 July 2018.

gliss/bow release were characteristic features of the opening four minutes. In terms of vibrato, Rich commented on my use of a wide, 'baggy' vibrato at 0:55, which he incorporates into his playing at 2:39 and subsequently uses an increasingly faster and narrower vibrato to match the building intensity of the piece (see Table 7.4). This vibrato has two defining features: first, the slow rate of the oscillation; and second, the breadth of the oscillation. In practice, the wide vibrato relates closely to the Karnatic finger roll that creates a deviation of pitch up to a semitone below the note.[257] The effect creates more of an ornament or embellishment rather than the Western classical notion of a vibrato, as I have outlined in Chapter 3. In *Bhairav* the wide vibrato technique is mainly employed on the second degree of the scale to create a tension with the tonic drone (oscillating low *Ni* / E flat against a *Sa* / D drone). This technique is part of the shared knowledge of the string players, but is drawn on by individual players through nonverbal means, rather than being an integral part of the group discussions and decisions as in the example of the slow *glissandi*. This technique can be seen as relying on predominantly declarative ways of knowing and emerged in the group through imitation rather than explicit, verbal discussion.

Gliss/bow release

The gliss/bow release technique provides a further degree of merging between the string players to create a string sound. On listening back to **Audio example 7.2**, I can recognise my use of the gliss/bow release at 0:39 and 1:11. I used it unknowingly at the time and had not previously identified it as a gesture or technique until Rich highlighted the relationship between his playing at 1:43 and

[257] Known as *andolan* in the Hindustani tradition.

my own. A gliss/bow release constitutes a *glissando* (descending in this case) where the bow is released and quickly reconnected with the string in the middle of the *glissando* (at 0:39, 1:11, 1:43, 1:55, 2:32 and 3:14). On hearing the gliss/bow release in my playing (not only in this piece), Rich made it a repeated feature of his playing (four times).

Having drawn my attention to this gesture after the creative and recording processes, Rich's observation leads to questions about the origins of this particular example. It is likely that the gliss/bow release emerged in my playing as a result of working with and listening to Karnatic violinists, in particular their approaches to *glissandi*. A similar technique featured in *tbb1* (Chapter 6), where Rob and I experimented with the placing of the bow in relation to *glissandi.* What does this mean for the group and the string sound in terms of shared knowledge? The gliss/bow release is situated within the string players' shared knowledge, but has a different relationship to each player in comparison to the previous two examples. First, the slow *glissando* was openly and verbally acknowledged in the group process; second, the wide vibrato was prominent in the group at a nonverbal level; and third, I would suggest that the gliss/bow release was a procedural feature of my playing, which Rich then incorporated into his playing. Having raised my awareness of the gliss/bow release through these discussions, my relationship with it has inevitably changed such that it can no longer be purely procedural; it will be interesting to observe how this shift in knowledge will affect my playing in future renditions of the piece.

Returning briefly to my Karnatic violin lessons, a lesson with Manjunath's son, Sumanth, reveals a bow-stopping exercise with *glissandi*[258] that is a possible source for the gliss/bow release from *Bhairav.* As demonstrated in **Video example 7.1**, this exercise requires the bow to release while the left hand fingers continue to move along the string (and heard in context following the exercise). Sumanth explained that most gurus treat these exercises as a 'secret'[259] that they only pass on to a small minority of students, if any: 'it's like the key to success, […] the key to the pure Indian thing, which people [often] think is hard. You just have to [practise] the exercise'.[260] Although this bow-stopping exercise is not exactly the same as the gliss/bow release I identified in *Bhairav,* the concept of continuing the left hand movement of a *glissando* so that the sounding pitch does not end with a specified *svara* can be traced back to this lesson with Sumanth. Two significant observations can be made from investigating this lesson with the bow-stopping exercise, which both relate to my discussions about ways of knowing in previous chapters. First, the fact that Sumanth's teaching is considerably more declarative in comparison to Manjunath and Nagaraj's (which is likely to be a result of Sumanth's relative inexperience as a teacher compared to his father and uncle – he was seventeen when this lesson took place[261]). Second, the notion of learning one of the 'trade secrets': while the secret techniques are not withheld from students in the Mysore Brothers' school of playing, they are not usually introduced to beginners in the Karnatic tradition.

[258] Violin lesson with Sumanth, 13 January 2017.
[259] See Chapter 5 for a discussion of gurus withholding their trade secrets.
[260] Violin lesson with Sumanth, 13 January 2017.
[261] Sumanth performs as a professional Karnatic violinist and regularly teaches Manjunath's students.

On reflection, Sumanth's teaching using specific exercises and descriptions of the movements involved was arguably tailored to my questions and Western classical experiences of playing and learning (with which Sumanth is familiar). I responded positively to this different method of teaching by commenting at the time that 'it really helps explaining it just like that […] – when you break up [the *gamakas*], I can grasp it a bit better'.[262] But it is surprising that the techniques from my lessons with Sumanth have not made more of an impact on my violin playing. Instead, it is predominantly techniques and *gamakas*, such as the partial release and block fingering, from my lessons with Manjunath and Nagaraj that I now use. The two ways of teaching engage with varying degrees of didactic and immersive methods for learning and consequently affect my playing in different ways. In contrast to imitative learning that is more procedural in nature (as discussed in Chapter 5), this lesson with Sumanth was faster paced and involved more techniques, exercises and explanations. By providing a more immediate point of access into the Karnatic way of playing the violin, Sumanth's teaching offered a foothold from which I could grasp a few techniques. This shortcut to playing Karnatic violin techniques was temporarily reassuring for me as the student, but in the long run, I rely more closely on the ways of playing that I learned through more imitative and immersive methods.

The experience of learning with Sumanth is reminiscent of the Gamaka Box example (Chapter 5), which demonstrated how more explicit and declarative ways of learning can create a short cut to playing *gamakas.* Arguably these methods for learning have not become embedded or embodied in my violin

[262] Violin lesson with Sumanth, 13 January 2017.

playing to the same extent as those learned through more traditional methods of Karnatic teaching. The focus on explanations and analysis reduces the emphasis on the felt experience of more traditional imitative teaching. The emergence of the gliss/bow release technique in *Bhairav* can be viewed as a feedback loop to my Karnatic violin lessons, where Rich's imitation of my playing caused a shift in my awareness of this way of playing: from an implicit to an explicit way of knowing. It is this analysis of *Bhairav* that reveals perspectives for reflecting back on different ways of teaching and learning with Karnatic violinists: my lesson with Sumanth represents a way of playing that I had forgotten about and that re-emerged in an improvisation with iyatraQuartet, perhaps pointing to different pathways of knowing that engage with varying degrees of tacit knowledge.

The example of the gliss/bow release technique contrasts with the slow *glissando* and wide vibrato techniques, which occurred as a verbal decision and through nonverbal, but explicit means, respectively. Taking the ways in which Karnatic violin techniques emerge in the string sound of *Bhairav* as a whole illustrates three distinct processes for cultivating shared knowledge in creative collaboration: understood from my perspective in this example as i) verbal and declarative (slow *glissandi*), ii) nonverbal and declarative (wide vibrato) and iii) nonverbal and procedural (gliss/bow release). At the same time, this understanding of group knowledge is bound up with the constantly shifting relationships between participants and the accumulative nature of personal and group knowledge (Sennett 2008: 79). The notion of a shared toolbox for string playing is a constant flow and exchange of ideas from inside and outside the

group, as well as explicit and implicit ways of knowing. In turn, these different pathways of knowledge give insight into the collaborative process, illustrated here by examining the role of Karnatic violin techniques as one component of creative exchange.

By isolating an element of string playing that has relatively clear origins and distinctive characteristics, specific techniques (the slow *glissando,* wide vibrato and gliss/bow release) can be traced from the playing of the Mysore Brothers (and their sons) through my lessons and into the ensemble. The ramifications of not involving Karnatic violinists directly in the creative process for iyatraQuartet results in a constantly shifting and evolving palette of string techniques that is not situated within any one musical tradition, but draws on multiple origins. A way of playing emerges through mediating techniques from a range of experiences, some of which are procedural in nature and emerge in other players (such as the gliss/bow release), while others are a more conscious resource (as when Rich cites his work with Hofesh Shechter Company as a significant influence,[263] and the explicit use of slow *glissando*[264]). It is the distributed nature of iyatraQuartet's creative process, as co-authored, established and non-notated, that presents a model where the mediation of Karnatic violin techniques can be more readily traced: from guru to *shishya,* and from these to the broader networks of musicians working together in creative collaborations.

[263] Interview (i3), 16 July 2018.
[264] Workshop (w2), 7 September 2017.

7.7. Conclusions

To conclude, I reflect on social mediation as a framework for understanding creative collaboration and cultural exchange. I highlight the fact that while theories of social mediation provide a useful framework from which my analysis can develop, real life examples do not conform so neatly into these models. By turning to my own shifting roles within the two groups, I illustrate the messy, and at times confusing, ways in which cultural exchange plays out in group creative practice. In addition, I suggest that musicians across the globe work with common skills (primarily based on listening) that enable elements of cultural exchange irrespective of Born's four planes of social mediation.

Having suggested that Jeremy's approach to cultural exchange in *EOTC* was a considered solution to negotiating two different musical traditions, my own experiences inevitably reflect on my knowledge of Indian classical music. From my perspective as a performer, it is significant that *EOTC* took place after my Karnatic lessons and the other collaborations in the thesis, including *Bhairav*. Various aspects of the non-exchangeable nature of Indian and Western classical musics in *EOTC* felt uncomfortable given the experience and knowledge of Indian classical music and cultural exchange that I had developed prior to this project. The most obvious tension for me was the question of whether I should use my knowledge of Karnatic violin playing in my approach to *EOTC.* With the exception of bars 73 to 76, the role of playing irrespectively of the Hindustani recordings felt like a contradiction to my instinctual response of engaging with the Hindustani musicians. Looking back, my experiences of learning by imitation had established a heightened method for reacting to other musicians that can be

traced through the creative processes of the London collaborations. *Bhairav*, on the contrary, illustrates a more fluid working environment where we instead embraced musical difference through building new ideas into the composition and the string sound of the piece.

My own discomfort is mirrored in George's reflection on his experience participating in both *EOTC* and *Bhairav*:

> [The two musical traditions] feel very much more separated for Jeremy's piece, maybe that's because I wasn't part of the creative [process], I didn't write it. [… Creating a new piece together, as in the case of *Bhairav*] leads to minds joining and trying to make a thing together […] You get different backgrounds, different experiences joining together, whereas [Jeremy's] way of working […] didn't involve that meeting of minds.[265]

In many ways, Jeremy's recognition of difference fits within Born's model, where the four planes of social mediation restrict the 'meeting of minds' that George describes. In this case, Jeremy's creative intentions are measured against the context of contemporary classical music in the UK – this imagined community (Born's second plane) acts as a boundary for negotiating difference between the Hindustani and Western classical musicians. The Dr K musicians conceive of themselves as part of the new music community, where the established roles and hierarchy between composer and performers create methods for working largely based on the performers realising the composer's creative decisions in the score (in this case, playing material that does not respond to the recorded samples).

[265] Interview (i3), 20 July 2018.

While I recognise the positioning of Dr K and *EOTC* within a contemporary classical context, my experiences reveal a tension between fitting into my role within a new music group in the UK and the disconnect with the Hindustani musicians. For me, the recordings triggered my knowledge of Indian classical music, creating a dual identity within this scenario. The shift of identity was to a position where I instinctively wanted to create an exchange between the two musical traditions (briefly explored in bars 73 to 76), but felt tied to the role of the Dr K violinist due to the nature of musical material.

Jeremy's approach can be understood as a method for making a successful piece given the artistic, ethical and racial differences invoked by Born's four planes. A closer involvement of the Hindustani musicians might have upset the group dynamics (within Dr K as well as between composer and performers) had Jeremy taken my experience with Indian classical music into account. In this scenario, Dr K would have shifted from operating as a relatively autonomous chamber group towards a model where I took a leading role as a mediator between the Dr K and Hindustani musicians – a position that was explored in *tbb2* and *tbb3,* but would have disrupted the more cooperative nature of chamber music making in Dr K. Instead, *EOTC* remains a piece for a chamber sextet within a contemporary classical setting where my role is upheld within the imagined community of a new music chamber ensemble and the group draws on established ways of working together (as well as with the composer).

Born's theories of social mediation help to understand why an apparently straightforward situation felt uncomfortable. In this example, Jeremy's clear

intentions to avoid a 'clichéd' approach established a non-exchangeable and, at times, contradictory experience for the musicians in terms of cultural exchange. Contrary to Born's model, the examples of the tubular bells in *EOTC* and the gliss/bow release in *Bhairav* illustrate moments when the players move outside-the-room, which can be seen as engaging with planes of social mediation from a different social and cultural network (that of Moumita Mitra in the case of *EOTC* and the Karnatic violin tradition in *Bhairav*). Here, I have suggested that the interactions and responses to musicians from apparently inflexible musical traditions highlight the potential limitations of Born's approach. The case studies of *EOTC* and *Bhairav* are examples from two groups with significantly different methods for creative collaboration, but which both demonstrate some of the ways in which musicians inevitably and invariably respond to each other (in person and by virtue of recordings). The insight from Joe's interpretation of the tubular bell part at letter I reveals some of the social interactions that are integral to group creative practice: dynamics that are fundamental, and taken further, in the collaborative process for iyatraQuartet.

The multi-faceted perspective of social mediation is appealing at a conceptual level, opening up a more integrated view of group creative practice and drawing attention to some of the broader – and unspoken – influences and constraints that shape collaborative practice. The complex layers of social and cultural mediation at play in case study 5 are one example, where this perspective can shed light on an entangled interactional process. At a practical level however, it is arguably limiting to view social interactions between musicians as being

restricted to these four planes when real life examples can bring to light creative responses to cultural exchange that challenge the theoretical models.

Chapter 8

Conclusions

By locating my case studies in a London context, these concluding comments aim to situate my work as a violinist within the current framework of cultural exchange that is increasingly emerging from a city that provides a meeting ground for artists and communities from across the globe. It is important to recognise that these projects are specific to my own journey within the London environment between 2010 and 2018: a large-scale metropolitan centre where the arts are bound up in the current liberal attitude towards multiculturalism. London has provided a particularly diverse context that I have examined through the lens of Karnatic violin techniques and their mediation between musicians in creative collaboration. While my case studies have included examples involving various instruments and electronics, it is the focus on the violin that has allowed me to trace the ways in which knowledge and creative expression can be distributed in group music making. This final chapter draws together the key themes of knowledge, social mediation and distributed creativity that have underpinned my discussions throughout the thesis as a way of further unpacking some of the myriad social and psychological processes that are integral to musicians working in cultural exchange. In particular, these conclusions take the 'insider knowledge' from my own practice as the basis for establishing an understanding of creative collaboration and cultural exchange more broadly.

Cultural exchange, as I have chosen to name the process, is a vast topic that deserves more attention beyond a literature that tends to focus on the undeniably important questions of exoticism and appropriation in music. It is

evident that many accounts present a predominantly negative perspective, rightly highlighting the problematic nature of collaborative exchange, as outlined in Chapter 2. These accounts of cultural exchange do not often address the potentially positive outcomes that are possible in creative processes and are ever increasing in real life contexts. The Menuhin-Shankar collaboration is an iconic example that demonstrated some of the problems and possibilities of cultural exchange between Indian and Western classical musicians. These included methods for teaching and working that offered a starting point for examining the relationship between musicians in collaboration, including teacher and student.

Chapter 3 provided the context for the violin in India from a historical and practical perspective. The European violin's historical journey to becoming an instrument that performs in almost all Karnatic classical concerts demonstrated: first, how the violin is a highly adaptable instrument; and second, as a consequence, how the violin can act as an agent for accessing and interacting with different musical traditions. Without wanting to present a comparison of Karnatic and Western classical violin playing, to which I cannot do justice given the imbalance of my experiences, Chapter 4 revealed some of the intricate – and often implicit – ways of playing the Karnatic violin. In that chapter, I asked: what can a more embodied understanding of playing a musical instrument bring to collaborative working practice? Sites of resistance with an instrument lead to embodied experiences that can open up great opportunities for creativity and it is these realisations that became integrated into my creative projects in London. In addition, the cultural construct of the hand, illustrated with the examples of

eating by hand and the hand *mudras*, gave a glimpse into some of the ways in which the relationship with the instrument relies on more general cultural constructs of the body and provided a path for working with resistance.

From the student's perspective, I continued my discussions exploring the ways in which a student can access the implicit knowledge of the expert-teacher – from Chapter 4 – by looking at the ways in which embodied knowledge is taught and learned – in Chapter 5. The relatively unsuccessful collaboration with Jyotsna, and the Gamaka Box session, can be understood in light of theories of knowledge. By identifying moments that align more closely with either procedural or declarative ways of knowing, I highlighted some of the tensions that prevented more successful outcomes for case studies 1 and 2. These case studies marked the beginning of a trajectory of case studies following different degrees of mediation in relation to Karnatic violin playing.

the bond between in Chapter 6 raised a number of questions relating to cultural exchange in contemporary music in London, which became apparent through identifying the shifting roles between the composer and myself as the performer across three versions of the piece. The inclusion of Embar Kannan's additional phrases highlighted how the involvement of a musician who might conventionally be regarded as outside the primary creative process shifted the creative emphasis towards a performer who took on a role as a mediator. By contrast, the scordatura in *Recitations* acted as a physical constraint for the performer to work within – one that was instigated by the composer. This revealed an experience that had parallels with the more unfamiliar felt

experience that I observed in my Karnatic violin lessons. By foregrounding an integrative perspective on improvisation, *tbb* and *Recitations* sought to illuminate a number of models for working with Karnatic violin techniques in composer-performer collaboration.

Turning to group creative practice, I concluded Chapter 6 with an acoustic arrangement of *tbb* that can be understood by drawing on theories of collaborative emergence and feedback loops. *tbb3,* along with the case studies in Chapter 7, involved no direct interaction between the participants and Karnatic violinists. Instead, my playing acted as a channel of mediation (not always intentionally) between the musicians, demonstrated to varying extents in *Elephant of the clouds* and *Bhairav.* These examples focused on Karnatic violin techniques as a small detail embedded within a multitude of exchanges in group collaborative practice. As such, the incorporation and mediation of Karnatic violin techniques provided a lens for examining questions of creative collaboration, while opening the investigation out to broader approaches to ways of knowing and social mediation at a group level. Theories of social mediation shone light on the broader view of social structures and interactions as a way of understanding what is being exchanged in group creative practice. iyatraQuartet's co-authored creative process was an example of the fluid and open-ended approach to collaborative practice that can be found at work in London today and also provided a point of reflection back to different ways of learning in my Karnatic violin lessons.

By framing detailed investigations from group collaborative practice within broader notions of social mediation, I have demonstrated how these examples can be viewed as part of a network of social, cultural and psychological relationships extending out from a Karnatic origin. From a practitioner's perspective, my engagement with Karnatic violin techniques has acted as a platform to represent the ways in which musicians interact through different ways of knowing. This has been made possible by focusing my approach on the process rather than the finished outcome, which is fundamental for examining creative and collaborative experiences. In any musical practice there is a transfer of knowledge – including procedural, declarative, embodied, personal and shared ways of knowing. These ways of knowing offer a perspective on the processes of change between musicians engaged in creative collaboration, which are an integral component of cultural exchange. In addition, cultural exchange can be understood as a process not only for negotiating difference (to use Born's term), but also for recognising common points of communication (as demonstrated in *EOTC* and discussed later on). Considering the thesis as a whole, I return to my opening question: how do musicians work together in creative collaboration and cultural exchange? My case studies have provided real life examples for investigating further what is actually going on in the creation of new music.

The focus on the direct contributions from Karnatic violin teachers in case studies 1, 2 and 3 has provided the base from which to understand the remaining case studies that did not have direct input from Karnatic violinists, but where their influence was present. Although I recognise a significant shift in my

understanding and approach to Karnatic violin lessons, it is difficult (even impossible) to disengage with previous ways of knowing in practice – which is where Born's four planes of social mediation, alongside different ways of knowing, help to provide an interpretative framework for some of the tensions and challenges in learning within a new musical tradition. Considering my distinctly different imagined communities, macro social background (ethnicity, gender, language, race, religion etc.) and institutional training, the extent to which it is possible to engage with Karnatic violin playing is arguably limited. For example, cognitive processes based on my Western classical training still dominate my experiences as a student in the Karnatic tradition – such as the hand positions required to play a particular *gamaka*.[266] My observations, such as the cultural construct of the hand in Chapter 4, suggest that it is possible to access new and more procedural ways of knowing, but that this shift in ways of knowing is a slow and ongoing process. As the example of the gliss/bow release in iyatraQuartet's *Bhairav* (Chapter 7) has illustrated, techniques that are learnt through imitation emerge in different ways in one's playing from those acquired through more declarative methods of teaching.

Referring back to oral teaching as a global phenomenon in early years learning (Merriam, A. 1964: 146-7), the fact that imitation and non-verbal means of communication are integral to creative collaboration points to the way in which the oral tradition was, for me, not an entirely unfamiliar – or non-Western – mode of knowing. Instead, imitative learning can be seen as something integral

[266] It will be interesting to observe whether I can move away from my previous ways of knowing over the course of my future Karnatic violin lessons.

to all music making, but a method that is a more concealed component of Western classical music teaching, where more declarative and analytical methods have taken precedence. Perhaps the recent move in Europe towards learning by doing and other noncognitive means (as observed in the popularity of yoga and meditation practices; see Thaker 2007: 68) demonstrates that, while oral traditions are considerably different from most formal educations, imitative learning is fundamental to informal learning across the globe and deserves more attention in both practice and research. With this in mind, my research has demonstrated how the Karnatic training has opened up a particular kind of learning that can be found in all learning – albeit to different extents. Merriam's emphasis on early years learning also draws attention to ways in which musicians exchange knowledge and work together – a process already present and integral to creative collaboration and cultural exchange.

Merriam argues that imitative methods for learning are often sidelined in formal – primarily written – Western education (1964: 146-7). But, as the examples of *Recitations* and *Bhairav* have illustrated, improvisatory processes in any musical and cultural tradition rely on creative processes that draw parallels with the ways in which young children imitate adults. The example of the gliss/bow release in *Bhairav* presents a case for arguing that imitative behaviour is a global phenomenon in music making, as Merriam suggests, and is sometimes restricted by instructive stimuli, such as notation. However, score-based musics also employ a high degree of attentiveness that comprises strategies for unlocking implicit knowledge and developing shared ways of knowing in both learning and group practice – highlighted in Cook and Schutz's discussions on the ways in

which the musicians of a string quartet and jazz group both have the 'ability to refresh and respond to ongoing events' (Cook 2007: 330). With this in mind, it was the imagined community of the contemporary music group, rather than the score, that governed the lack of responses to the Hindustani recordings in *EOTC*.

My findings bring to light ways in which different methods for teaching and learning can shape the creative process and relationships between musicians in collaboration. As a contrast to Born's framework of four planes of social mediation, the global set of skills that musicians employ for working together in cultural exchange are based on processes of listening and imitation independent of social mediation – demonstrated by Joe's example of the tubular bell part in *EOTC*. In this example, my knowledge of Karnatic violin playing arguably acted as a barrier to, what was for Joe, an instinctive response to the Hindustani recording by Moumita Mitra. On the one hand, the tension I experienced in questioning whether or not to respond to the Hindustani recordings can be viewed as a new imagined community from which I was operating – one that incorporated both Karnatic and Western classical musics. But, on the other hand, my new position cannot be viewed as being part of the Hindustani or Karnatic tradition. Rather, the knowledge developed through my Karnatic lessons invoked a more questioning approach to the planes of social mediation – arguably breaking them down and operating in a more fluid cultural space.

While building shared knowledge in group music making is seen to be desirable and is arguably unavoidable, the example of *EOTC* highlighted how widespread assumptions about shared ways of knowing can be problematic and deserve

further questioning. My observations have drawn attention to the fact that the term 'shared knowledge' is too broad and fails to recognise the different ways of knowing that operate within musical groups. The two final case studies have highlighted the fact that while shared knowledge is something that creative groups strive to cultivate, valuable interactional processes and creative resources can also arise from the attentive and intuitive responses that occur between musicians and – perhaps paradoxically – can result from a lack of shared knowledge.

Although theories of social mediation have allowed me to significantly develop an understanding of creative collaboration and cultural exchange, I return to Ingold's ecological view of knowledge from Chapter 2, which suggests that knowledge – as the foundation of social mediation – cannot be objectified (Ingold 2011: 162). Instead, Ingold proposes that people grow into knowledge in a process described as 'wayfaring, not transmission' (2011: 162). My interaction with Karnatic violin techniques can be understood from a perspective on knowledge as an open-ended entity – the same process by which my London collaborators also engaged with Hindustani and Karnatic musics, but not in such an intensive manner as is possible having studied in India. Musicians working in creative collaboration often remain within the four planes of social mediation, but moments of exchange invariably emerge and over time surpass the planes of social mediation through social and cultural interactions – a process more akin to wayfaring, as well as being fundamental to learning.

It is important to recognise that the case studies presented here are particular examples from my own practice, and that the significance of this research in the longer term must come from situating it within the wider view of London's current multicultural arts scene. Multiculturalism in London represents a lived reality for the working environment of artists in the twenty-first century. As such, an ethnography of musicians engaging in cultural exchange in London would be a fascinating and welcome addition to Cottrell's study of Western classical musicians in London (2004). Interviews and audio/video retrospective responses with a broad range of musicians could begin to establish a wider understanding of the breadth of cultural exchange in London today.

What is presented here is an insider's perspective that begins to expose and explore some of the ways to understanding of cultural exchange. This research has demonstrated how a self-reflexive opportunity has shifted my understanding of the oral teaching tradition in India: from questioning the reliance on call and response techniques towards a position where I now recognise the significant value of learning through doing. This is not to suggest a passive state of learning, but one that is engaged with the felt and present experience of learning through playing the violin, which then extends out to ways of working in creative collaboration. Having outlined the advantages of autoethnography in the opening chapters, the particular features of such an approach lie in the fact that this work represents a single – but 'distributed single' – perspective. The practical constraints of using pre-existing performance projects as research, rather than artificially created tailor-made examples, inevitably result in a degree of heterogeneity in the material generated from rehearsals, performances

and interviews. For example, in the case of Dr K Sextet, the interview responses ranged from Joe's vivid and detailed descriptions to one member who did not agree to be interviewed.

But the research has revealed that significant insight can be gained from examining the less successful collaborations – or aspects of collaboration (see also Kanga 2014: 450-2) – as much as from those that are apparently more 'successful'. This is partly the consequence of (deliberately) including projects that were not all working towards polished finished products (something that is a virtue of a written, rather than practical, doctorate). Examining a work in progress, as in the example of *Rāga Abhogi* with Jyotsna Srikanth, provides a window onto some of the ongoing and, in some cases, unresolved discussions – the reflections on those discussions often feeding back into the work itself.

With this in mind, it is worth considering whether 'collaboration [is] necessarily a good thing', and whether it should always be viewed in a positive light? (Payne 2015: 266). In the case of collaborative cultural exchange in particular, there are many relations and layers of interaction that require careful questioning: the example of Paul Simon's (1986) *Graceland* album is just one example of a controversial case that has been prominent in mainstream media as well as in academia (see Meintjes 1990). With this in mind, I acknowledge the significant power relations that have underpinned many musics involving cultural exchange, particularly those that have involved high profile music industry producers, record labels and management. At the same time, the fact that cultural exchange is not a new concept (as outlined in Chapter 1), invites further

consideration. By contrast with the situation a hundred, or even fifty, years ago, the meaning of cultural exchange in the twenty-first century – in the context of the Internet and polarised financial divisions in the music industry – is considerably different and undoubtably warrants careful scrutiny. In particular, the relationship between exchanging and retaining cultural traditions is a pressing concern. The sharing of knowledge and meeting of minds can be considered both an ideal and an unavoidable reality in the twenty-first century, but one that potentially threatens the existence of traditional musics. As an inherently social activity, musical collaboration appears virtually ubiquitous within the practices of cultural exchange in music – but something that arguably deserves greater attention in both theory and practice.

In a ten-year arc from where this thesis commenced – at a concert in Kolkata – I have found myself performing with the Bengali singers Chandra Chakraborty and Imtiaz Ahmed in London throughout the last year. It seems timely that these concerts featured the arts organisation SAUDHA,[267] which promotes Bengali music and poetry in London, given the initial experiences in Kolkata that sparked my interest in the violin in India ten years ago. On 25 October 2018 I was part of a performance with Hindustani classical vocalist Chandra Chakraborty at Portcullis House, in the House of Commons, London.[268] This concert featured *Rāgas Yaman* and *Bhairavi,* incorporating *khyāl*, *thumri* and *bajan* styles, which were performed as an hour-long continuous piece. Accompanying Chandra in a

[267] SAUDHA is The Society of Poetry and Indian Music.
[268] This event was hosted by Fabian Hamilton MP as part of the Bangla Music Festival 2018. The performers were Chandra Chakraborty (voice and harmonium), Yousuf Ali Khan (tabla), Siddartha Kargupta (harmonium), Chandra's vocal students Priya Bhagwat and Anuja Pradhan, and myself as the violinist.

relatively traditional classical concert performance came as a surprise that I had not anticipated when I began this research – performing as a Karnatic or Hindustani classical violinist has never been an aim of mine. However, this experience revealed the ways in which imitative learning underpins the role of the violinist-as-accompanist in Indian (Karnatic and Hindustani) classical music. The example indicates the extent to which performance is a continuation of the learning process rather than an end point, which is particularly visible given the more fluid relationship between lessons, practice and performance in comparison to my previous experiences, and exemplified by the presence of Chandra's students on the stage (in this case, two vocalists who performed one song each). The improvisatory and unpredictable nature of the music relied on visual and sometimes spoken cues in performance that meant that a significant proportion of the performance was created in real time, using a combination of composed and improvised formats.

My experience performing with Chandra demonstrates the extent to which my own playing needed to rely on embodied knowledge – a theme that is central to this whole thesis. While I had prepared to play repeated renditions of one composition (*Mei wari wari jaungi preetam pyare*) along with my own improvised *ālap*, the remainder of the performance relied entirely on my reacting to Chandra and shadowing the vocal line. In some ways this was an uncomfortable experience in which I could not anticipate what was going to happen and the written notes I had made in a rehearsal were rendered unhelpful. But, once I was able to disengage with my prior expectations for the performance (such as the structure, time cycles and the choice of *gamakas* that

might be most suitable for each *rāga),* I experienced a shift towards an in-the-moment focus on listening and the physicality of playing the violin with no space for conscious decisions about what or how to play. Instead I had to primarily rely on my procedural knowledge of the instrument to a significantly greater extent than when playing from notated musics. How does this example from a rather traditional Hindustani performance reflect on my examples of collaborative cultural exchange in London?

In light of this embodied experience, the performance with Chandra drew on a combination of shared knowledge (the modal structure of a *rāga* and a repeating composition) coupled with an interactive and creative approach incorporating more personal knowledge. The relationship between shared and newly devised material is arguably a balance that varies considerably across different musical traditions. This example indicates some of the ways in which musicians work – on stage – with a lack of shared knowledge and highlights the fact that it is in these moments of negotiating different ways of knowing that collaborative practice is perhaps at its most creative. Improvising on stage drew on instinctive skills from both Karnatic and Western musics: and this example suggests that while ways of knowing and learning emerge over time, the process is far from a linear progression, but instead something more reminiscent of Ingold's term 'wayfaring' that, in this case, relies on a creative interplay between multiple musical traditions and embodied ways of knowing the violin. The complex relationship between personal and shared knowledge lies at the heart of a musical performance of this kind, and is a reminder that knowledge 'is not transmitted as a complex structure. Rather, knowledge is the ever-emergent

product of a complex process' (Ingold 2011: 159), reflecting the collaborative cultural exchange that arguably resides in most, if not all, musical traditions.

In this thesis, the violin has provided one example of an object at the centre of a web of cultural flows, people, traditions, social environments, psychological associations, historical significance, transport, travel and more. The violin is representative of some of the larger pathways and interactions between people living in the increasingly globalised twenty-first century; and illustrated by Manjunath's reference to the violin as 'an international instrument'.[269] At the same time, the violin can provide a point of shared knowledge between people from different musical and cultural backgrounds, breaking language barriers and revealing common ways of knowing between people from seemingly different backgrounds – an object, cultural signifier and focus of craft that acts as the catalyst for working relationships with musicians representing multiple traditions in London.

[269] Lesson with Manjunath, 15 January 2017.

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Appendix I

Artist biographies[270]

Chapter 4: Experiencing the Karnatic Violin

Mysore Brothers: Mysore Nagaraj and Dr. Manjunath

Violin maestros Mysore Nagaraj and Dr. Mysore Manjunath are the sons and disciples of renowned violinist Prof. Mahadevappa. They have evolved a distinctive style of their own and have been mesmerising audiences all over the globe including at the Royal Albert Hall, Sydney Opera House, Common Thread Music festival in Oregon, Santa-Fe festival in New Mexico and the World Music Festival in Chicago. They have worked with many European orchestras, which has included a live broadcast across Europe of their concert at Milano Music Festival in Italy. They remain committed to education, having worked with students at the University of Oxford, MIT, Chicago and Princeton in the US and the University of Osaka in Japan. The Los Angeles Times warmly noted that they have 'crossed over so many boundaries to create music wonder'. Mysore Nagaraj and Dr. Manjunath are cultural ambassadors of India and continue to preserve and spread the rich cultural heritage of Indian classical music in all its glory. www.violinindia.com

[270] These biographies are extracts from those supplied by the artists. They have been abridged and otherwise not edited in any way. Full biographies and recordings for most of the artists are available online.

Chapter 5: The Karnatic Guru: A Collaborative Model

Dr. Jyotsna Srikanth

Hailing from Bangalore and now based in London, Jyotsna is Europe's foremost Indian violinist. Her music illuminates Karnatic musical tradition in kaleidoscope colour. Approaching every musical interaction with a forward-thinking outlook and elastic expressivity, Jyotsna is just as likely be found revelling in *rāga* rotations or jamming in free jazz, often marrying the two. She trained under musical greats including R.R. Keshavamurthy and V.S. Narasimhan, making her professional debut at the age of nine. Jyotsna went on to begin a successful career lending her talent to the film industry, playing on over two hundred South Indian cinematic soundtracks. Upon moving to London her work expanded to include television and festival engagements including work for the Discovery Channel, National Geographic, WOMAD, BBC Proms and the Red Violin Festival. www.indianviolin.eu

Ramesh Vinayakam is a composer, arranger, singer and music producer from Chennai who has trained in both Karnatic and Western classical musics. He has composed the sound tracks for many Telugu and Tamil films, as well as recording as a playback singer. Vinayakam has been working on a system called Gamaka Box for visually representing and notating Karnatic *gamakas*. @musicramesh

Chapter 6: Improvisation as the 'bedrock of musical creativity' in composer-performer collaborations

Dr. Robert Szymanek is a musician with a thirst for the eclectic. As an educator, multi-instrumentalist, singer and composer, his work in music explores an array of musical styles across borders. Robert has had performances from London and the US, to Dubai and Japan, collaborating with musicians from diverse cultures. He teaches Sundanese Gamelan at the University of Manchester, alongside his regular practice as a teacher of piano and voice. www.bertieweb.com

Embar S. Kannan hails from an illustrious family of musicians. Living up to the dreams of his father Sangeetha Bhooshanam Sri Embar Sadagopan, Kannan took up the violin at the age of 6. His formal training in Karnatic violin playing was with Kanyakumari. Kannan is a top A-grade artist with the All India Radio. Universally acclaimed as a violinist with extraordinary bowing quality and remarkably sweet playing, his style is marked by clarity, soulfulness and energy. Kannan has accompanied almost all the leading artists in the Karnatic music world and also collaborates with Hindustani, Sufi and Western classical musicians. In addition, he regularly records film scores for Kannada movies and is a founding member of the Crossroads Ensemble. www.embarkannan.com

Jasmin Kent Rodgman's projects aim to engage with and challenge today's audiences and experiment with unique physical and audio set-ups. From London with a British-Malaysian heritage, her aesthetic lies in intermedia and cultural collaboration, continuously exploring modes of expression, location and interaction. She has recently finished work on two independent feature films set

in London and the other in Tibet, whilst also working with low-budget projects and emerging talent supported by organisations such as Film London, BFI.Network, Screen Australia and the Arts Council England. Jasmin's concert music and theatre works have been performed across the UK at festivals such as Grimeborn Opera Festival, Secret Garden Party Festival and Cheltenham Music Festival. www.jkr-music.com

Eugene Feygelson is a Brooklyn-born London-based multi-instrumentalist, composer, events organizer and business developer. He recently completed a PhD in classical improvisation at King's College London and the Guildhall School of Music & Drama. Eugene draws on influences from various world musics, classical music, gypsy jazz, and electronic music in his compositions and performance. @EugeneFeygelson

Sarah Hill is a London-based violinist who performs and creates music with a diverse range of composers, musicians and artists. Her versatility as a performer and interest in a wide range of music, including baroque, contemporary classical, folk and world, allows her to work in an array of exciting settings. Sarah is passionate about music education, and when she is not performing she is a violin tutor for London Music Masters and Pembroke Academy of Music, as well as leading her own creative music workshops. www.sarah-hill.com

Neil Valentine is a creative musician, workshop leader and string specialist who delivers creative, fun and inclusive music making. Working with schools, in community settings and with arts organisations he designs and delivers exciting,

fun and relevant music making projects across the country. Neil specialises in 're-imagining' existing classical repertoire for today.

Jenny Wilkinson studied at the Royal Northern College of Music and the Royal Academy of Music, where she was taught by Yuko Inoue. She is a freelance orchestral musician, performing with orchestras and ensembles around the country. In recent years Jenny has played particularly regularly with the Royal Philharmonic Orchestra, the Royal Philharmonic Concert Orchestra and the Bournemouth Symphony Orchestra. She also does an increasing amount of session work, recording the soundtracks for films, television programmes and computer games. Jenny is a keen chamber musician, with a particular interest in contemporary music. She has performed many contemporary operas, premièred new works and collaborated with jazz, folk and pop musicians.

Chapter 7: Group Creative Practice in London

Dr. Jeremy Thurlow's is a unique voice in today's musical scene: restlessly innovative, soulful, often lyrical, with deep roots in the ancient but very much of today. Described by Henri Dutilleux as 'extremely seductive... with real freshness, lightness, and innovative élan', his music has been performed by the BBC Philharmonic, the Fitzwilliam Quartet, Aronowitz Ensemble, BBC Singers, Sequenza, Rolf Hind and Peter Sheppard Skærved among many others, and was awarded the George Butterworth Prize. He broadcasts on BBC Radio 3, and also performs as a pianist, especially in chamber music. Jeremy Thurlow is Fellow and Lecturer in Music at Robinson College, University of Cambridge.
www.jeremythurlow.com

Dr K Sextet formed at the Royal College of Music in 2009 with a commitment to create fresh, exciting new music. They have performed widely at numerous venues and festivals around the UK and recently featured on BBC Radio 3 'Late Junction'. International appearances include an unforgettable appearance at the Harare International Festival of the Arts in Zimbabwe. Dr K are a regular ensemble in residence for the Cheltenham Music Festival Composer Academy, enjoy a long standing relationship with Late Music York and recently worked with composer Ewan Campbell and soprano Lesley-Jane Rogers on '*The Pierrot Project',* exploring music related to the themes of Schoenberg's '*Pierrot Lunaire'* featuring collaboration with visual artists and commissions from a range of established and emerging composers. The group is named after Karlheinz Stockhausen's 1969 short composition by the same name. www.drksextet.com

Ilze Ikse – flutes

Jessie Grimes / George Sleightholme – clarinets

Alice Barron – violin

Alice Murray / Anna Menzies – cello

Alex Wilson – piano

Joseph Richards – percussion

Sayak Barua was born in 20th May 1982, in Durgapur, West Bengal. Besides being a Masters graduate in Instrumental Music (sarod) from Rabindra Bharati University, Kolkata (2006) he also trained under legendary musicians including the late Pandit Indraneel Bhattacharya and Mrs. Ameena Perera. He

has performed in Kolkata, Bhopal, Durgapur, Alipur Duar and Delhi and is an empanelled artist for the Indian Council for Cultural Relations. @sayakbarua

Moumita Mitra

Indian Classical and semi-classical vocalist, born in 1980, Moumita was initiated to Hindustani Classical Music by the late Pandit A. Kannan under whom she learned with before studying with Sri Anjan Majumdar. She possesses an outstanding voice and has a distinguishing 'Gayaki' of her own. She is a national scholarship holder in *Khayal* from The Dept. of Culture of Indian Govt. Winner of many prestigious competitions of classical and semi-classical vocal, Moumita is a graded artist of All India Radio in *Khayal* and Thumri-dadra and has been performing in many prestigious concerts in India and abroad. She is an empanelled artist of EZCC (Eastern Zonal Cultural Centre). www.artists-india.com/vocalists/Moumita-Mitra

iyatraQuartet

Described as 'one of the most exciting new music groups around at the moment', iyatraQuartet create original, boundary-bending and energetic music for violin, bass clarinet, cello and percussion. The London-based quartet have enjoyed performances at Songlines Encounters (2015, 2018), WOMAD (2016) and Bloomsbury festivals, including collaborations with members of the Orchestra of Syrian Musicians. iyatraQuartet recorded a debut album, 'This World Alone', in November 2015, which was received with a 5-star album choice by fRoots magazine and with a 4-star review in Songlines Magazine. 'iyatra' is derived

from the Hindi word for travel, often as pilgrimage – a concept embraced in all performances. www.iyatraquartet.com

Alice Barron – violin

Rich Phillips – cello

Will Roberts – percussion

George Sleightholme – clarinets

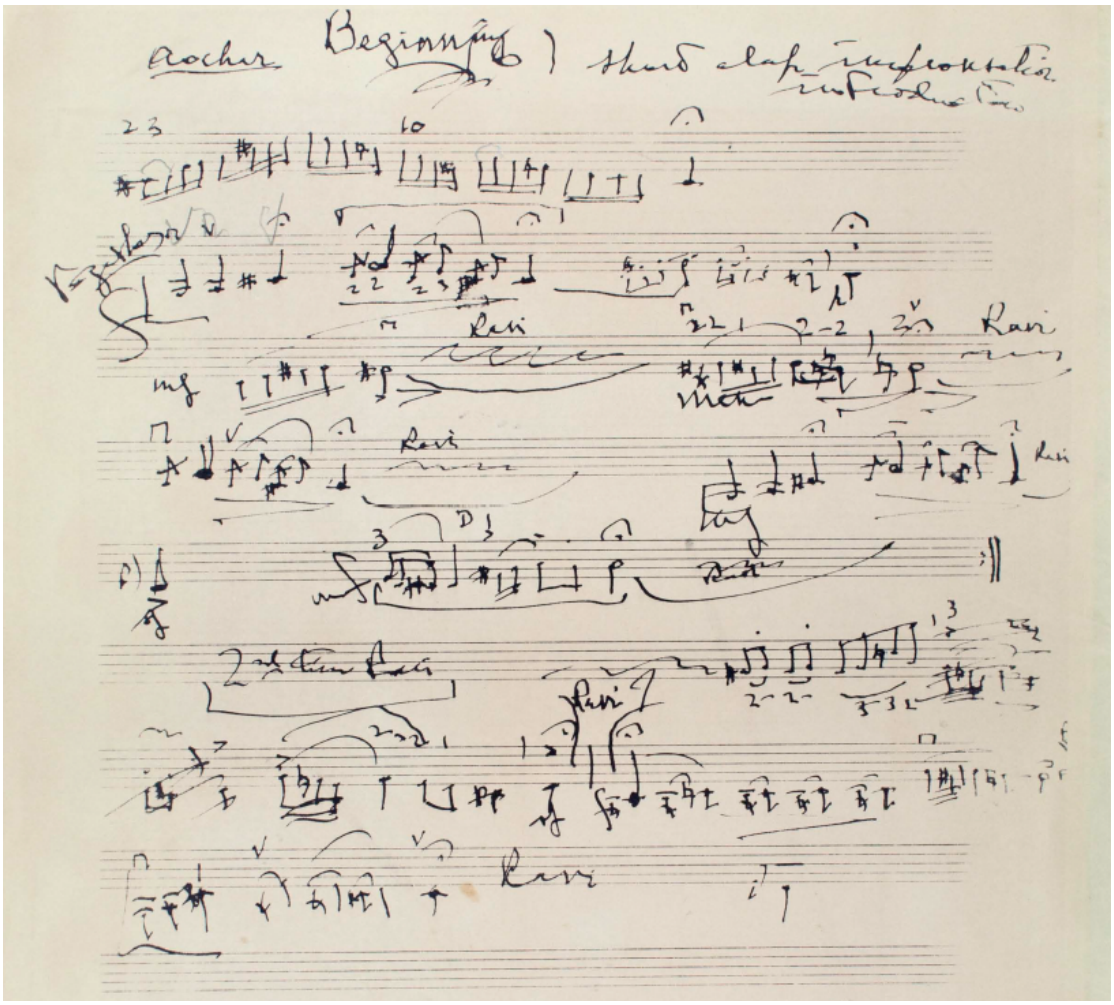
Chapter 8: Conclusions

Chandra Chakraborty began singing at the age of three, studying Hindustani music with her mother Smt. Manju Chakraborty in Kolkata. By the age of 12, she had completed Sangeet Prabhakar and Sangeet Visharad (two of the most prestigious awards of Indian Music) in music and Kathak dance and started performing regularly at the All India Radio and Television. Chandra was selected by Indian Council for Cultural Relations and moved to Johannesburg as the teacher of Indian music at the Indian Consulate. Chandra started performing all over Africa including in Durban, Cape Town, Port Elizabeth and remote villages in Mozambique and Zimbabwe. Chandra is now based in the UK, where she performs and teaches for well-known organisations.
www.chandrachakraborty.info

Appendix II

Rāga Piloo, opening extract

Yehudi Menuhin's transcription and performance notes (image catalogue number: 128721-1001; reproduced from the Menuhin Archive, Royal Academy of Music, London).



Appendix III

Programme notes[271]

Chapter 6: Improvisation as the 'bedrock of musical creativity' in composer-performer collaborations

the bond between **Robert Szymanek, 2011**

violin and three loop pedals

Alice Barron – Violin

Robert Szymanek – Loop Pedals

This piece lies in a space between many things: between South Indian and European classical music, between acoustic and electronic, between improvisation and composition, between Alice and myself. It wouldn't have existed without Alice. Her love and knowledge of South Indian violin music was the core inspiration, a springboard from which I was able to explore violin writing from a new angle.

The music builds in layer upon layer: short phrases are played and recorded and played back through the loop pedals, over which longer stretches of melody emerge. The working title of the piece was "Mysterious Atmosphere", and I think that says a lot about what happens to the room whenever it's played. RS.

[271] These programme notes were written by the composers and included here exactly as they were printed in the programme accompanying each concert performance.

Recitations **Jasmin Kent Rodgman,** 2017

for solo violin and loop pedals

Alice's study of Karnatic violin traditions brought a new musical vocabulary to this collaborative piece and opened up questions about the role of performer and (as) composer. Inspiration also came from French poet Franck André Jamme's collection of abstract seventeenth century tantric art from Rajasthan, India. The vibrant hues and minimalist geometric shapes resonate uncannily with some modern twentieth century art, bringing together two cultures that are seemingly so far apart.

Combined, these inspirations led us to experiment with notation—traditional and painted score. The second movement couples pre-composed material with improvised sections accompanied by abstract shapes and colour, allowing the performer a chance to respond freely to the composer each time the work is performed. JKR.

Recitations invites the composer, performer and audience to re-imagine the sound world of the violin. Two violins with different scordatura bring contrasting resonances and harmonics, which are captured and replayed. Two loop pedals magnify the effect of the single performer, building an exchange between the live and recorded sounds. And inflections and embellishments inspired by the stylistic playing of the Mysore Brothers in South India are woven

into improvisations. We would like to thank Sound and Music for their generous support through the Francis Chagrin Award. AB.

the bond between **Robert Szymanek/Alice Barron, [2011] 2013**

three violins and viola

This is Alice's new acoustic arrangement of the bond between for three violins and viola positioned surrounding the audience. Following a series of lessons and research in Karnatic (South Indian) violin techniques, Alice has added phrases from Karnatic *rāgas*. These fragments act as an additional voice, commenting on the original material. In contrast with the more homogenous texture of one solo violinist layering up loops in the original, this version embraces the individual styles and influences brought out by each individual musician. With thanks to Embar Kannan in Chennai. AB.

Chapter 7: Group Creative Practice in London

Elephant of the clouds **Jeremy Thurlow, 2018**

A couple of years ago I had the good fortune to spend two weeks in Kolkata (Calcutta), devising some new songs with them and playing on the harmonium. Afterwards I asked the singer to do something rather unusual – to record for me some of her own beautiful and distinctive singing as an unaccompanied line, with neither the customary drones of the tanpura nor the fascinating underlying rhythms of the table. Normally this combination of sounds makes a complete musical 'ecology' to which nothing needs to be added; on its own, however, the

singing can be woven into a quite different sound world to create something new. This is what I have attempted to do in my piece Elephant of the clouds, written for the Dr K Sextet and premiered in April this year in the Holywell Music Room, Oxford.

The music for the six instruments followed its own path, arriving from time to time in a place where – unexpectedly – the singer's voice suddenly emerges. I did not follow any particular programme or story, but in the course of a little background reading I came across Airaavatha, the white elephant ridden by the powerful Vedic god Indra, and was struck by one of his honorary names, 'Elephant of the clouds'. As a title this opened up enormous spaces for me to explore – between height and depth, weight and lightness, density and void, mind and emptiness. JT.