

Contemporary Choral Work with Boys

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Acknowledgments

This is a book I have wanted to write for some time. It is a book that I think also is needed, so I would like to thank the publisher, Noel McPherson for seeing the need and giving me the opportunity. As is explained in the introduction, though I have received a good number of research grants during my career, this is a book written during the first year of retirement, my pension being my research grant! I have been able, therefore, to research and write whatever I liked without the need to worry about how to please a grant awarding body. Nevertheless, much is owed to Edge Hill University, which has continued to provide the supporting infrastructure that is so often taken for granted but without which it is difficult to function as an academic. In particular I would like to thank Robert Smedley, Pro-vice chancellor and Dean of the education faculty, who has been a most supportive line manager in the years leading up to this book.

I had naively imagined that this would be a book I could just sit down and write. This proved to be far from the case, particularly when venturing outside my academic comfort zone. I would therefore like to thank Professor Gary Butler, consultant paediatrician at University College London for his help with the paediatrics and endocrinology, and Professor David Howard, Head of the Department of Electronics at the University of York for his help with the physiology and acoustics of the singing voice. I owe much also to Dr Ann-Christine Mecke of the Felix Mendelssohn Bartholdy University of Music and Theatre in Leipzig for the German perspective. I would also like to acknowledge the support of Drs Ursula Geisler and Karin Johansson for their supportive work in setting up the European Choir in Focus research network and the happy hours in Sweden and Germany. For historical and archival material, I must thank Stephen Beet whose efforts in this field are legendary and whose willingness to share is most generous. It was a privilege to correspond with Dr John Cooksey before his death, and I would like also to thank Dr Don Collins of the Cambiata Vocal Institute of America for his encouragement.

A number of UK musical colleagues have contributed much to the book and they receive due acknowledgement in the chapters that describe their work, though I would like to thank them all again here for their willingness to contribute. I need to single out Ian Wells from whose choir in Southport a number of the most closely and recently studied boys have been drawn, but who does not have his own chapter section. A good many boys have given me many hours of their time. I would like to thank them for this, the ones named in the interludes have their own memorials, but there have been many others too. I am very grateful to all the boys who have bravely allowed me to

measure their growth and development and probe some of the inner secrets of their vocal functioning. In particular I must thank the parents of these boys who have acted as their chaperones, but in many cases going further and further beyond the call of duty – from cups of coffee to a full supper! It has been a privilege to be invited into people's lives in such a way. I really ought particularly to thank Gill Fourie of the Association of British Choral Directors. Not only does Gill hold the undisputed record for provision of supper, her enthusiasm and readiness to put into practice the principles of this book has resulted in many adolescent boys learning what choral singing can do for them.

Finally, this is the third book I have written on boys and singing, as well as many academic papers. Each and every such publication has presented a new aural challenge for my long-suffering wife Jo. Not only has she suffered a house full of loud treble voices being tested to destruction, she has proof read with an eagle eye every result.

This book is dedicated to all who can see the need to inspire and interest boys in choral singing. May their work prosper.

Foreword

‘His two elder brothers were choristers at St Paul’s.’

These words could have been spoken many times in the past few years. But the young man they referred to was William Byrd, in the mid-sixteenth century. The tradition of boys’ singing in the United Kingdom is broad and deep and, in my view, along with the Associated Board, the chief reason for this country’s peculiar musical strength.

But traditions need constant reinvention if they are to remain vibrant. Hence recent significant changes in the organisation and recruitment of boy choristers, the founding of secular boy-treble choirs and the attempts to encourage boys to begin what for some will be the source of joy for a lifetime. The introduction of girl choristers, first by Richard Seal to Salisbury Cathedral Choir in addition to the boys, was perceived by some as a threat to the tradition, but with thoughtful organisation, mindful of social gender differences, it has been a great success. For a girl to sing and for a boy to sing are very different matters, socially and physiologically, because the nature of the change that happens to a boy’s voice is much more extreme.

Until recently it has been difficult to understand the physical nature of these changes: singing-teaching in general has relied to a certain extent on guesswork and practical experience. But now that we have the benefit of good, clear practical research we can know for certain what happens, and our teaching can be based on solid facts derived from direct observation.

It is important that musicianship develops along with the voice. It is no good just having a good voice and expecting later on that someone will teach you the notes. For this reason, and for general social and vocal development in a singer, it is extremely important to sing well in a good choir. This book helps with all of these processes, and for the first time brings together social, physiological and vocal research to give a wonderfully clear view of the way forward for a young singer.

Ralph Allwood, MBE

Introduction

How and why this book was written and who it is for

This is a book for anybody who wants to understand in some depth the boy choral voice and perhaps begin or improve their work with boys' choirs. It is the third book I have written about boys and singing. My first two were based primarily upon sociological studies of how boys negotiate masculine identity through voice. If you are worried about whether boys do not want to 'sound like girls', if you think boys will only sing in rock bands, or if you want to understand how 'cuteness' is exploited by the big recording companies, you may find those books of interest. This book differs from the first two because it is written unashamedly with one particular population of boys in mind. These are the boys for whom we do not have to make singing 'cool' and to whom we do not have to apologise for choral work. These are the boys who might hear a great choral sound, experience a feeling from deep inside and want to join in. Who can analyse exactly what they feel? I have plenty of research conducted over the years that reliably informs me that whatever these feelings are, they exist in quite young boys. There are perhaps more of these boys than is sometimes imagined. They are waiting for somebody who will open a musical treasure trove for them and unlock the key to something that will fulfil them for the rest of their lives.

In this book, I attempt a blend of different kinds of knowledge. For much of my time as an academic, I wrestled with the difference between theoretical knowledge and professional knowledge, never more so than when trying to explain to prospective postgraduate students the difference between a Ph.D. and an Ed.D. The former has to do with the creation of new knowledge that may be quite esoteric or abstruse, theoretical in the sense of 'blue skies', abstract, or as is sometimes said, 'basic'. The latter has to do with the creation of new knowledge about professional practice, applied knowledge, 'useful' knowledge even. Too often one hears theory decried, usually by relatively indifferent practitioners who would improve their choir work considerably if they understood its theoretical base better. Equally, one comes across brilliant conductors of boys' choirs who with a false modesty confess themselves to be in awe of academic professors with theory. But these brilliant conductors do have ways of working which constitute theory. It is simply a matter of articulating it.

In assembling my material, I have drawn on three principal sources. First, I have looked at the existing body of scientific research into the boy voice. I have interpreted this theory critically in the light of my own experience and

my observations of how others put it into practice. I have added to it from the latest research in endocrinology and paediatrics. Second, there is my own, original empirical work on puberty and choral tone. I hope the claim that this does add something new to what is known, challenging legitimately some existing beliefs and practices, is not too immodest. This work has involved many long hours of work with boys who have consented to participate in this study. Over 1000 boys' voices have been recorded and analysed by my research. A cohort of the sample has been involved in longitudinal assessment over several years. I have got to know these boys and their families well. I have perhaps unique data on their growth and development that is amply supplemented by the conversations I have recorded with them during their assessments. I have also made good quality recordings of their singing. Cameo portraits of some of these boys are included as interludes between the main chapters. They are, after all, the most important participants in contemporary choral work with boys. Finally, I have looked closely at the work of some choir directors I respect, drawing those colleagues into reflective dialogue about the nature of their work. In these ways, I hope I have produced a book that is not full of abstract or rarefied theory, but theory in use. I have attempted to analyse and explain what successful directors of boys' choral work actually do, in the hope that others may incorporate aspects of that understanding into their own work.

If you are looking for a book of hints on repertoire, you will need to look elsewhere. My aim is that the reader him or herself should be able to select repertoire on the basis of the knowledge of boys and their voices that is contained within these pages. Repertoire lists rapidly date and what works for one choir may not work for another. Nevertheless I have asked the choir directors interviewed to provide lists of repertoire that has worked well for them in recent years. These are included as appendices but more usefully on the companion web pages where they can be regularly updated.

Also on the companion web pages, you will find an extensive bibliography for each chapter. Many things are said in the book about boys and their voices and, unless I use an expression such as 'in my opinion' or 'it is my belief', what is said is based on peer-reviewed scientific research or the writings of authoritative and experienced practitioners. The book is not written in an academic style in which the flow of the text is constantly interrupted by referencing and citation, but for those who wish to interrogate in the academic manner, the web bibliography is there. For other readers, I have included reference to the major seminal sources and, at the end of each chapter, recommendations for further reading.

Some lessons from the evolution of the book

Whilst I have my research on masculinity, boyhood and vocal identity to draw on, this book is based on new research specifically into the boy voice in choral singing. This is my real passion and I have been able to write this book beholden to nobody but myself. There is a reason for this. I have reached that stage in my career where I no longer have to obtain research grants, either to find the time to research and write, or to justify my university position. Research grants were never forthcoming for something that was perceived as the preserve of a privileged elite. It was only when I adopted the language of singing as an inclusive activity for young males that the grant money began to flow. One of my larger grants afforded me a whole year out to do nothing but travel the country talking to boys who had recorded commercial CDs and asking young people in schools what they thought of those CDs. The title of the grant application on which it was based was *Young Masculinity and Vocal Performance* (Ashley, 2011). It required me to look at the use of the young male voice in every musical genre. Later, when I received an even larger grant to work with the National Youth Choirs of Great Britain, the official title of the project was *Widening Young Male Participation in Chorus*.

Why all this beating about the bush? Why such care to avoid the words ‘choir’ or ‘choral’ at any point? Well, for a very good reason. It has been my experience that the words ‘choir’ and ‘choral’ tend to signal a privileged elite that is going to find it very hard to get public money for research. This is particularly so if boys are involved, for the perception is that of an exclusive activity for white boys from the middle and upper classes. This may not be an entirely accurate perception and is certainly not one I endorse or in any way seek to perpetuate. I have nevertheless learned the hard way over many a long year that it reigns in the minds of the gatekeepers of public funding. For all sorts of reasons, this situation seems to have gone largely unchallenged by the guardians of choral singing.

One of the most troublesome words in the musical lexicon for me is ‘classical’. I prefer to understand this as the style of the Haydn/Mozart period but this, of course, is not the popular meaning. The popular meaning has much more to do with privilege and exclusion. In the popular imagination there *is* funding available for the promotion of ‘classical’ music, but only for huge sums that seem to go to London opera houses. There *is* funding available for the social inclusion of disaffected young males through ‘music’, but not exactly what anybody might call ‘classical’ music. So is this book about ‘classical’ music? I prefer to think not. I prefer to think it is about high-quality choral work, though I do have views on what makes for the ‘high quality’ and the ‘choral’.

I will confine my political statements to the assertion that high-quality choral work should be available to all and leave it at that for the time being. This is a book about the boy choral voice. Its content is influenced primarily by my scientific interest in how that sound is produced. I have no particular desire to become embroiled in cultural disputes. I will confess that I seldom read reviews of the latest choir recordings in musical journals. I am far more likely to read and study scientific reports about the acoustics of the vocal tract or, most of all, the impact of puberty on the quality of choral tone. This latter topic has constituted my own particular attempt to add to the sum of human knowledge, as one is required to do as a research professor. I could have written a whole book on the topic of puberty and choral tone, but I wished to write a book that would have wider appeal and more use. My intention has been to provide a text that will serve as the handbook of a workable, practical theory on choral work with boys.

Significant 'health warnings' are nevertheless required at this point. First, it must be plainly stated that we know a great deal less about the boy choral voice than might be imagined. Whilst we have not explored in much depth what lies beyond the frontiers of Jupiter's moons neither have we discovered anything like all there is to be known about the great depths of our own oceans. The same is true of the boy choral voice. A constant feature of my quest for knowledge of the topic has been disappointment at the inability of leading voice coaches and researchers to answer some of my questions. My own understanding has proceeded in fits and starts as I have come to realize the extent to which published texts that sound authoritative owe more to their authors' imaginations than to the thorough process of slow, painstaking scientific advance. This book, therefore, is full of gaps in knowledge. I endeavour to make it clear when a claim is based upon my own belief as opposed to a piece of scientific research that seems to be valid and reliable. When I state that something is uncertain, it is less likely, I hope, because I have failed to 'do my homework' than that I have found flaws in some of the 'homework texts' consulted. All true scientific knowledge is in any case provisional and subject to modification or refutation.

The second health warning concerns perhaps the biggest professional challenge I have faced in a long career of teaching, lecturing and teacher training. Is it possible to distil the art of a great teacher or conductor in a way that its elements can be taught to others? This has certainly been the aim of what has been called the 'technocratic' approach to teacher training that has prevailed in recent decades. Critics of this approach suggest that it de-professionalises teaching, reducing it to a mere technology that can be learned by anyone capable of repeating procedures determined to be 'what works' by other 'experts'. Supporters of the process claim that it results in more consistent outcomes.

The pot of gold at the end of the choral work rainbow is that the postcode lottery which operates with regards to any one boy's chance of coming into contact with a high quality choral conductor might be ended.

I had thus hoped, earlier in my career, through the codification and transmission of relevant knowledge to achieve more consistent outcomes and greater equality of access for boys to good choral work. A level playing field in which any boy joining any choir anywhere will have equality of opportunity with any other remains frustratingly elusive. I am coming to accept it as perhaps inevitable. Not all choirs will ever be equally good and the deciding factor is always the availability of a conductor who is literally 'outstanding'—who stands outside what can be taught by technocratic means. This will not stop me working throughout the book towards a resolution of the art versus science dichotomy. I hope to persuade the reader that there is merit in a creative approach that understands that science has to be practised as much as art.

My own recent learning has been the product of much that is measurable and quantifiable. More things than we might care to admit, indeed, can be measured and quantified. It is possible to measure such straightforward qualities as boys' heights, weights, lung volumes, laryngeal waveforms, acoustic spectra and so on. I have made measurements of over 1000 boys and derived tremendous insights as a result. The creative synthesis of such basic quantities can and has led to huge advances in the understanding of something that might otherwise be regarded as an inaccessible, mystical art. Nevertheless, I have borrowed from Dylan Wiliam the term 'black box' to describe those many elements of choral work with boys that retain for the present either a mystical dimension, or an area where scientific illumination remains far from adequate.

I hope to convey as much of what can be known and understood as possible, but scientific insights too cannot be reduced to words and numbers on a page. One has to do the measuring oneself to understand in depth what it means and gain the 'feel' for the practical relevance of the knowledge. I have produced, with my colleague David Howard, a smartphone app which should make the process much more accessible and I will refer to this app at various points throughout the text.

Ultimately though, I have never been able to capture, distil and codify the mystique of what is added by an outstanding conductor when he or she brings this together in a way that defies reduction and codification. There is then the further complication of working with boys! It might be thought that the proliferation of IT-driven aids to singing, particularly endoscopic imagery of the larynx, would motivate boys who belong to the generation known as 'digital natives'. I certainly thought this once, but experience has taught me otherwise. Boys certainly do not learn to sing through instruction in a set of codified principles. Most boys just want to get on with the singing and what

appeals to them most is the choir director who has the practical art of being inspirational, funny, able to retain control in spite of this, musically demanding and well-paced in rehearsal (i.e. singing not talking!). So the challenge is to get the best out of boys through skilful interpretation of theoretical knowledge in a practical context. No small ask!

Out of these considerations, I have evolved the following general theory of contemporary choral work with boys. I will explain, justify and elaborate on this theory as the pages of the book unfold.

1. Boys learn to sing through being in choirs. Their becoming proficient musicians is a particularly useful by-product of this process.
2. Successful choral work with boys begins with a search for the right boys—musical boys who can readily access their ‘head voice’.
3. These boys then learn to sing in choirs through imitation. They need to be surrounded by good musicianship and good vocal role models.
4. No one will get anywhere in choral work with boys unless they are passionate about success with boys and also able to discipline them whilst earning their respect, trust and loyalty.
5. Anyone undertaking choral work with boys needs, in addition to all the other knowledge bases of the choral director, a good understanding of adolescence, puberty and the voice. This is necessary to avoid damage either to boys’ future careers as adult singers or to the sensibilities of listeners.

One does not, in an empirical work, simply pontificate about one’s beliefs—one seeks the evidence to test, refine or discard them. What has pleased me most during the researching and writing of this book is the feeling that I have been able to evolve the above general theory through collaboration with people who do actually obtain inspirational choral performances from boys. It has been my unique privilege to articulate in a book the knowledge that these experts carry about in their daily work. I hope I am successful in demonstrating how theory and practice are not mutually exclusive but intimately intertwined in the best choral work with boys.

Further reading

Durrant, C. (2003). *Choral Conducting: Philosophy and Practice*. London: Routledge.

Chapter 1: Into the choral black box

This chapter is all about the underlying rationale for choral singing. Each section begins with a ‘W’: What is choral singing? Who are the boys who do it? Where can and does it take place? Perhaps most important of all, why do we do it?

1.1 What is choral singing?

What is choral singing? I am going to avoid discussion of whether it is in any way a ‘classical’ form of music-making and adopt an acoustic definition. According to Sten Ternström (2003), the minimum number of singers that can constitute a vocal chorus is three to a part. This is because the chorus effect of conflicting intonation, attack and delay is first heard when the number of voices is more than two. Thus, for the performance of four-part vocal music, the smallest number of singers possible to count as a choir is twelve. Eight singers would be a double octet, acoustically different to a choir. This assumes that a choir is also a chorus. Choir singing, therefore, is an activity, the nature of which is tied up with acoustic (and social) factors that require at least twelve performers. Something called a ‘chorus effect’ differentiates choral work from ‘singing’.

Jim Daugherty (2003) offers us this definition. The ‘chorus effect’, he states:

occurs when many voices and their reflections create a quasi-random sound of such complexity that the normal mechanisms of auditory localization and fusion are disrupted; in effect, [the chorus effect] dissociates sound from its sources and endows it with an ‘independent’ existence.

Nowhere more than in work with boys does this dissociation of the sound from its sources matter. For literally thousands of years, the sound of boys’ voices in chorus has been regarded as the sound of ‘angels’. The boys’ choral sound is not the sound of wannabe stars on *Whatever Country’s Got Talent*. It is the disembodied, ethereal sound that belongs, not to the singer, but if one is inclined to the poetic metaphor, to the angelic hosts far beyond the skies. This is the principal reason that boys’ voices have been thought so suitable for use in Christian worship over millennia. Even in what is, to all intents and purposes, a post-Christian age for most people, it is no bad thing for small boys to learn that they are not divas around whose vainglorious hopes for fleeting and vacuous celebrity status the universe revolves.

Returning, however to my strictly scientific brief, there are all sorts of acoustic considerations that bring angel voices into existence. A key word that unites theorists and practitioners is blend. More readily understood by

boys is the notion of teamwork. As one conductor we shall meet later in the book said, on the football field a boy can pause to do up his bootlace. In the choir, one boy who drops out of the team effort for even a split second ruins the whole chord. Boys need absolutely to understand this and to be wholly committed to the concept. 'Understand' for boys means a complete focus on the task, which is the product of absolute discipline. I shall have a lot more to say about how this is achieved in a positive way by the power of a conductor who wins boys' respect out of admiration and loyalty, not tyranny and fear.

Blend is more than just teamwork, however, and something of a Holy Grail in choral singing. Many choir directors worry that individual voices will stand out in the chorus, particularly if some members of the choir are also solo singers. For the subdued adult singer, this can lead to choral singing that is less resonant than solo singing. We shall need to develop an understanding during the book of what this means. There has been a fair amount of research into how adult solo singers adapt their behaviours when singing in chorus. Some cut back on the higher resonant frequencies, particularly those that peak as the 'singer's formant'. They emphasise the fundamental tones more than the upper harmonics. Voices blend as a result into a whole that is favoured by some choir directors though often a cause of frustration to singing teachers. We shall return shortly and several times later to this very important topic.

The process differs somewhat with regard to boys. It is an area in which I am currently conducting research (see Chapter 10) and I am some way from a definitive answer. Colin Baldy (2010) believes that choir directors are wrong to request singers to subdue their voices. A choir composed of singers singing as soloists will always, he argues, sound better than one in which voices are compromised in order to 'blend'. Blend will occur automatically, he argues, when voices are used properly. Boys should certainly 'sing out'. This does not mean force the tone through raising sub-glottal pressure. Boys may do this if you just request more volume from them or they interpret 'sing out' in this way. 'Sing out' means use the whole voice with its fully developed resonances and it takes boys time to learn this.

I have heard it said that boys' voices blend easily because they lack individual character. In acoustic terms, this is a claim that the spectrum is simple and the wave form sinusoidal. This is patently false. I have solid evidence that shows how every boy's voice in a choir is entirely unique and easily recognizable to anybody who knows the boy. There have been a few boy trebles over the years that have had astonishing and memorable voices. I will name James Rainbird as one voice that haunts me. A whole choir of James Rainbirds would certainly blend. Take most individual boys out of a fine sounding choir,

though, and the result is usually less impressive than the sound of the whole choir. With good adult singers, it can be the other way round.

This is not though because boys' treble voices lack complexity or harmonic interest. There has been some interesting work recently on the phenomenon of 'ring'. 'Ring' is a set of formant frequencies which allow a child's treble voice to carry powerfully above the bigger sound of men's voices, organs or orchestras. It is ring that creates the spine tingle of a great boy choral sound in the resonant acoustic of a big cathedral. Other research has shown that not only ring frequencies but most other interesting formant clusters disappear from the young male voice towards the end of puberty. There are perfectly objective scientific demonstrations of the fact that boys' treble voices are special, whilst the voices of older adolescents are dull, uninteresting and weak. I use the term 'schoolboy bass' for this period of waiting for the resonance or harmonic interest to return in the mature adult voice.

I am going to use from time to time the metaphor of the 'black box' to describe the current state of scientific insight into the acoustic blending of boy treble voices. However, my attempts to capture and codify the 'theory in use' of choral professionals have met with greater success. All agree that choral singing differs from other kinds of singing by virtue of the fact that it is highly disciplined. In the words of one respondent, boys in a choir are not 'just singing'. Choral singing must provide boys with a challenge that takes them beyond singing together the songs they might in any case sing along with on their iPods. Choral work with boys is the process of teaching them as a team demanding music that is unfamiliar. It is this stretching and occasional excursion beyond the comfort zone that generates the process of achieving absolute unanimity. All good directors of boys' choral work stress unanimity in vowel production, breathing, intonation, consonant placing and articulation, attack, decay, and just about any other common action of the choir. These are the elements they concentrate on in their rehearsals. These, and the way a particular conductor likes them done, seem to be the things that create both the blend and the distinctive sound of the individual choir.

This is not a matter of 'classical' music only. The same disciplined focus on challenge and unanimity makes any genre of music choral. Boys can sometimes respond well to actions and choreography and I have seen some thrilling performances where these too are achieved with fantastic unanimity and discipline. You should have no doubt that plenty of boys are up for the kind of effort involved. One thing my own research and observations have taught me over the years is that one of the major reasons boys turn against singing in schools is low expectations and lack of challenge. So you should not be afraid to challenge your boys—though with an important caveat I address in the section 1.2. I am often told by conductors and teachers who work with

both boys' and girls' choirs that boys are usually less likely than girls to hold grudges. I have seen and experienced this for myself. This is not an excuse for treating them badly, but I have learned over the years that boys in choirs tend to be quite robust. If they are boys who are going to enjoy choral work, they will rise to your challenges and demands. They will most likely shrug off your occasional frustration in much the same way as they might shrug off the occasional fight with a peer. If they are not suited to your choir, they will leave and such attrition has to be accepted as part of the process of maintaining a boys' choir.

Returning to the metaphor of the black box, there is just so much that we do not know that remains a subject for scientific curiosity. For example, there is a growing body of research that seems to show how our conscious mind follows behind actions taken much more quickly by the subconscious. This applies to the way in which some voices lead and some follow within the choral blend. There have been interesting studies that have simultaneously recorded independently all the voices of a choral blend and mapped out in milliseconds where each one is in relation to the others. These studies have made me aware of how, when singing in a choir myself, I can mis-pitch an interval I would normally get right if another singer next to me gets it wrong. I am aware that this has happened before I notice consciously the other singer's error and it is then too late for conscious remediation. Precisely when a singer comes in is likely to be a function of the subconscious, even if the conscious is under the illusion it has played a part in the process. Even following a conductor may be partly illusory. I have sat through demonstrations in which choirs have sung with and without conductors whilst under close scientific scrutiny. These show that there are certainly many cues other than the conductor's obvious gestures which singers follow. It may be that attention to the conductor's gestures is not as much part of the elusive choral blend as is sometimes thought. Conductors, particularly of boys' choirs, have many tasks other than arm-waving to perform.

Perhaps the greatest of all the choral black box mysteries is that of how boys actually learn to sing. One thing I have come to appreciate only relatively recently is the extent to which so many of the muscles used in singing have no conscious nerve feedback to the brain. Perhaps most significant of all is the elusive diaphragm muscle. There was a time when breathing from the diaphragm was the 'in thing'. Boys would be exhorted to 'support the tone' as though the diaphragm would gently push up an air column. This is complete nonsense as an elementary knowledge of anatomy and physiology ought to confirm. Muscles only operate on one direction by contraction and in the case of the diaphragm this is downwards to expand the chest cavity and cause inhalation. An expanding 'tummy' might confirm that this is happening and

is to be preferred to raised shoulders, a sure sign of both tension that will compress the larynx and clavicular breathing that will not fully inflate the lungs or give ‘support’.

Tell your boys to ‘expand their tummies’ though and some of them may do just that—push their stomachs out with little in the way of effective inhalation. With many boys, even experienced cathedral choristers, the battle is simply to get them to breathe at all. It is no use asking your boys to sense the muscular action of the diaphragm because it has no nerves conveying sensation to the brain. All it can do is relax whilst a host of other muscles control the exhalation process. To attempt to explain these complex muscles to a choir of boys would run the risk of boring them to death. Any that survived might then fall victim to the highly counterproductive ‘frog and centipede’ syndrome. The old story of the centipede that could walk perfectly well until the frog asked it how it managed to coordinate all its legs in the right order is a way of communicating the idea of involuntary muscular action to boys.

The answer is more likely to be regular reminders to the whole choir about good posture (head, bottom, feet in a line) and the need for relaxation (floppy shoulders, knees unlocked). Approaches to rehearsal that induce relaxation and allow the involuntary reflexes to do their work will help maintain correct posture once it is established. Enjoyment and fun are vital parts of a boys’ choir rehearsal—partly because most boys are fun-loving but mainly because this is how you create the necessary relaxation. Most of the faults you are likely to encounter in your boys’ technique are the result of poor posture and tension. For example, a locked jaw or jutting chin, indicative of all the wrong sorts of pressure on the larynx, are very common. These faults may well increase as puberty progresses and register breaks become more pronounced. Many singers testify to the benefits of the Alexander technique. Teachers of choristers use it with younger boys and I have received very positive feedback from older boys to whom I have recommended Alexander technique lessons.

If you have difficulty in getting your boys to remember the importance of breathing, I have found that recording the choir, and particularly individual members, can sometimes work wonders. Boys who previously ignored everything that was said to them can be quite shocked to hear how the end of their phrase collapses because of insufficient breath control. The boy will then take ownership of the problem and this may be all that is necessary. Choral work should teach boys the skill of critical listening and attention to those parts of their bodies used in singing. They need to know what running out of air feels like and sounds like.

Boys are, I believe, by their nature first and foremost choral rather than solo singers. They can produce a fine choral sound without the faintest understanding of what a vowel formant might be. They will blend the actions of

different laryngeal muscle groups without even, in many cases, knowing in a propositional sense that they possess a larynx. They do this because they have an amazing capacity to learn complex skills by imitation. Boys are not taught in the best choirs by technical instruction. They absorb art. A good boys' choir is a place where a boy, more than anything else, learns through imitation. They absorb the musicianship that will serve them for the rest of their lives. The job of the boys' choir director, I would summarise, is to surround the boy with the art to imitate, whilst at the same time knowing enough about singing and the pubertal male larynx to do no harm to his voice or future vocal technique.

There are many adult singers who have learned almost all that they know about singing through membership of a choir. The question inevitably arises as to whether this is sufficient. In an earlier book (*Teaching Singing to Boys and Teenagers*, 2008), I interviewed Roy Massey. I hope he will forgive me if I describe him as one of the 'old school' of English cathedral organists. Here, once again, are his words:

I always produced the sound I wanted to hear and half the time it was just the way I liked it really, there's no more theory than that . . . It's a great shame it all started getting bogged down with theories really and people were brought in as voice coaches. We have voice coaches these days, they worry me . . . [b]ecause I'm sure there's some very good voice coaching going on but are they producing a sound of the choirmaster's creation or are they producing the sound of the voice coach? I wouldn't have wanted anyone near my boys because they might spoil it, they might alter what I want to hear.

(Ashley, 2008, p.103)

If readers become 'bogged down' with theory, I will have failed. The theory I am seeking to describe I hope will be a liberating one that will enrich practice. There is a difference between an obsession with theory and having enough knowledge about what one is actually doing to avoid harm or unintended consequences. I have spoken to, observed and interviewed various singing teachers and voice coaches over the years. They no more attempt to fill boys' heads with 'theory' in their teaching than does the good choir director. The focus of a boy's voice coaching session is every bit as practical. Some voice coaches I have spoken to, though, have been quite uncomplimentary and uncharitable about choir directors. If they are to be believed, choirs are places where boys actually learn a number of bad habits and poor technique that need correction if the boy wishes to take singing seriously as an adult. It is important to remember that a boy does not actually belong to a choir director. Boys are not bought and disposed of in the way musical instruments are.

Happily, all of the coaches interviewed for this book reported a good working relationship with their conductors. The conductors too reported very positively on what they themselves had learned about singing and on the advantages of having somebody able to give boys the individual attention that is not possible in choir rehearsal. Good singing teachers who work in partnership with the choir director are not attempting to turn boys into miniature adult singers. They are more likely to be participating in the process of constant drip-feed that reminds boys of the necessity for very basic things, such as actually remembering to breathe. A choir is a place where great sounds are created but also where many individual faults are hidden. There is no need, in my view, to fear that a voice coach will take away the ‘choirmaster’s sound’. I do not think this is possible, and neither do the voice coaches! Boys spend far more time with their choir directors than they do with their voice coaches. They learn so much more through the repertoire they sing, and by imitation of the sounds and actions around them in choir, than they do by any form of coaching that the conductor who is able to achieve discipline and focus has nothing to fear.

1.2 Who are these boys?

I adopted an acoustic definition of choir. I am also going to adopt an acoustic definition of boy. Previously, I have explored the meaning of ‘boy’ through social constructivism. ‘Boy’ as a social construction could refer to a newborn baby, as in ‘It’s a boy!’ It could refer to a 25-year-old hotel porter, as in ‘The boys will bring your bags up’. A bio-medical definition related to adolescence and puberty will take us nearer the kind of definition we need for this book, but to hit the nail right on the head, we need an acoustic definition. My acoustic definition of ‘boy’ is a young male with a fundamental voice pitch frequency in the range of about 200–250 Hz, a rich acoustic spectrum with ring frequencies in the regions of 1.5–5 and 7.5–10 kHz. Translating this scientific definition into more familiar terms, we might arrive at the word soprano, or treble.

We shall see in later chapters (especially Chapters 3 and 5) that this acoustic definition will serve very well and there are extremely solid grounds for employing it. It enables us to differentiate between boys and girls, between boys and ‘young children’ (even if male), and it enables us to differentiate between the boy ‘treble’ sound that is commonly accepted and other high male voices such as boy sopranos or adult male sopranists (castrati now being extinct). These matters will need to be explored in greater depth. Finally, it enables us to differentiate between what I am going to call ‘boys’ and what I am going to call ‘young men’. The word ‘young man’, when considered as a social construction, can be at least as abstruse and ambiguous as ‘boy’. Examples might include ‘Now look here, young man’ when addressing a

seven-year-old who has perhaps done something requiring firm correction, or 'the young men in Year 8' when it is desired to inspire a sense of maturity. My acoustic definition of 'young man' is a young male with a fundamental voice pitch frequency in the range of about 130–190 Hz, a limited acoustic spectrum and absence of either singer's formant or ring. Readers may recognise such a voice as a rather dull one.

These acoustic definitions, rather than everyday language or actual chronological age, are what really count. They do, however, come with inevitable complications. First, there is probably the greatest paradox in choral singing. A boy of twelve can perform to an exciting professional standard in a choir that can charge strangers expensive ticket prices for a concert. Add two years' 'seniority', however, and that same heroic twelve-year-old is reduced to a mere 'youth' whose voice, if of interest at all, is of interest only to parents, teachers and family friends. Perhaps, by then, if the young man has worked sufficiently hard, his maturing mastery of any musical instruments he may have been learning may begin to compensate for the loss of his choral ability. In terms of choral performance, however, progress can appear to run in reverse for males aged anywhere between about twelve or thirteen and fifteen or sixteen. The whole process of developing a singing voice that strangers will pay to hear begins again at around seventeen years of age and can take at least as long to develop as the treble voice it replaced. Nature can be neither retarded nor hurried.

The acoustic definition unfortunately cannot be entirely hived off from chronological age or bio-medical definitions of boy. Here there are two immense challenges. The first is that chronological age does not synchronise with biological age. Much of this book is about male puberty, a topic of towering importance in choral work with boys. Puberty is no respecter of chronological age. For some boys it comes early and for others late. There is a critical period in the young male lifecycle when boys of similar age may be at quite different stages of puberty and consequently differ from their peers with regard to the acoustic definition of boy. It is not only perfectly possible but an everyday occurrence in this way for a twelve-year-old to be a 'young man' and a fourteen-year-old to be a 'boy'. The question arises, therefore, as to whether a book about choral work with boys ought to include young men at all. On balance I think it should, and this one will. However, there is an important caveat that a distinction needs to be made between pushing boys' voices to the highest standards of choral performance and maintaining the interest of young men in choral singing during that period in their lives when their voices are changing from those of boys to those of mature men.

These voice changes can make it difficult for boys to cope socially but they can present impossible challenges when faced with the way schooling