



Regular Article

En passant learning of music theory in choirs; teaching and teacher education implications for South African conductors

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ABSTRACT

Fifteen experienced South African conductors were interviewed on the importance of Music Theory for choristers, and its inculcation. All agreed on the value of some knowledge and understanding of Music Theory. They reflected particularly on its contribution to rapid learning and satisfying performance of items in their repertoire. Although not the main purpose of rehearsal, all conductors endeavour to improve this knowledge and understanding, illustrating the importance of Music Theory concepts as prompted by the needs of the music. Illustrations should be tailored to choristers' maturity and experience, but gratifying improvements in insight and competence result in all cases.

1. Introduction

This study builds on a research thread, with the most recent publication entitled 'Learning music theory *en passant*: a study in an internationally recognised South African University student choir'. Students in this choir were found to acquire basic Music Theory knowledge as a byproduct of their choral participation, even where they had no formal music education background (Barrett et al., 2019). The study has now been extended, exploring the importance that conductors attach to Music Theory as a tool in achieving their performance objectives. The initial research arose from the frustrations of a retired physicist's attempts to master "Music Theory".

'South Africa has a vibrant and well-developed choral music scene that incorporates many musical genres and is evident in most, if not all, sectors of South African society' (Hammond, 2004, p. 103). Choral singing is very popular in Africa (De Beer & Shitandi, 2012, p. 189) and especially in South Africa (Barrett, 2007; Van As, 2014). It should therefore come as no surprise that some of the finest choirs reside on this continent and particularly in South Africa (Cronje, 2016). Cultural and social fabrics are generated within societal groups due to the important role played by these South African choirs (Veblen & Olsson, 2002, p. 731) and choral activities occur throughout the country daily (Evans, 2010, p. 309). For the majority of South Africans, singing – be it in a formal environment such as a church, community or school choir, or an

informal setting such as singing around a campfire, in the rural townships, or while protestors 'toi-toi' in the city centres – is vital (Barrett, 2007; Levine, 2005; Van As, 2009) as it provides the opportunity for singers to express themselves (Barrett & Vermeulen, 2019, p. 32). However, the teaching and learning of Music Theory is certainly not a specifically perceived benefit of such choral participation, by either conductors or choristers.

Choral singing in South Africa is multi-dimensional, and choirs incorporate many musical genres – classical, traditional, popular – into their repertoires. Although many choristers come from traditional African musical environments, conductors selected as interviewees for this study focus extensively on teaching and performing Western choral music learnt from scores – the type of repertoire where Music Theory is most relevant.

2. Definition of terms

The authors found various interpretations, in the interviews and the literature, of the terms 'Music Theory' and 'Choral Music'. The definitions that we chose and the reasons for our choices are set out below.

2.1. Music theory

We adhere to the term Music Theory because it is in common usage,

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especially by the examining bodies ABRSM (Associated Board of the Royal Schools of Music), Trinity College of London and Unisa (the University of South Africa) that offer Music Theory grade levels, subscribed to by many music teachers and their pupils in South Africa. The curricula include aspects of music notation, composition and music terminology.

2.2. Choral Music

The term ‘choral music’ is used for various groups of people singing collectively. Encyclopaedia Britannica defines it as music sung by a choir in two or more parts but adds that it is a musical genre subject to great misunderstanding. Furthermore, the definition of choral music includes a ‘far wider area than a comparable definition of an instrumental genre’ (www.britannica.com). In the *Cambridge Companion to Choral Music*, editor Andre de Quadros substantiates this. He admits that conceptualising a book about choral music worldwide would be ‘way beyond the scope of anything less than a series of books’ (2012, pp. 1–2) and this practice is considered by many to be the most popular global form of music making (De Quadros, 2012, p. 1). The conductors interviewed for this research have choirs comprising singers from various cultural groups and although there may be an emphasis on classical/Western repertoire, they, and many outstanding choral groups in South Africa, specialise in a plethora of musical genres that are, as De Quadros describes, ‘distinctive, in some cases unique, bearing little relationship with the Western choir’ (De Quadros, 2012, p. 1). Although South Africa’s historical past includes many people of Western origin, and those influenced by this history and culture, there are many choirs, all containing members of various ethnic backgrounds, that fit into De Quadros’s definition of a Western choral ensemble. Experienced conductors of some of these choirs, and their use of and attitude toward Music Theory, are the focus of this article.

3. A perspective on music theory as applied to choirs

A choir can be given the simple description of an organised group of singers. However, in this discussion we regard a (high performance) choir as a group of people who have learnt to make a range of sounds at similar pitches and for near-identical durations in such a way that they create a product that is more than the sum of their individual contributions, the quality of the sounds meeting the expectations of the conductor. The conductor of a high-performance choir is required to select a team of individuals to make up such an ensemble from an aspirant group whose talents and experience typically cover a wide range. An essential requirement is the ability to make harmonious sounds, but the next in line is the ability to learn many sequences of notes (and words) that make up what we call a song. The population from which this group is selected will typically have a wide range of song-learning ability, dependent mostly on age and background: from schoolchildren to experienced adults, from ‘musical’ backgrounds that may or may not include singing parents, or from siblings, friends or teachers. One of the challenges for a conductor is that the singers available come from a defined group, e.g. pupils at a school, students/staff at a university. Another is the type of music that candidates are familiar with – from school war-cries to operatic performances. In a society as diverse as South Africa, where this research was carried out, this may also cover from Western Classical melodies, where pitch and contour are widely viewed as more important than in African traditional music, where the rhythm – sometimes highly complex – is frequently regarded as the most defining feature.

It is likely that all these candidates first ‘learnt to sing’ by mimicking older singers. They learnt by listening to a series of sounds and making similar sounds themselves, initially with no conscious effort. This is directly analogous to the process of learning to speak: hearing words, having some understanding of their meaning, and stringing them together to reflect concepts. It is taken for granted that most children

will simply ‘pick this up’. Much later they will learn to identify written characters, register their assembly into written words and then sentences and concepts. They would then be described as ‘literate’, as those who learn to read and write music are also typically those described as ‘musically literate’.

The challenge facing the conductor whose choir members need to learn many songs of different character is to speed up the equivalent process of acquiring musical literacy. A common route is to get members to learn from written sources that we call scores (or to select those who can). One aspect of this process is the learning of Music Theory. To many young musicians this is a tedious purgatory through which one needs to pass to be accepted as an accomplished musician. Many older and amateur musicians never fully develop the skill: they rely on listening to the music while looking at the score, using the latter as an aide memoire/tool to replicate the necessary sounds until they have memorised the piece sufficiently well to produce the song unaided by its notated version.

The third author of this paper falls into the latter category. He first sang in public at the age of 10 years in an eisteddfod in a small country town where he was brought up. He then moved through the singing world, mostly in choirs, to singing lead parts in amateur Gilbert and Sullivan productions, the latter mostly since retiring from a career in science and technology, based on his studies in physics. He plays no musical instrument. The other authors are a youthful choir conductor of established reputation with high performance choirs and a retired professor of Music Education; both play the piano.

This work was initiated by the experience of the third author in attempting to learn enough Music Theory to pass Grade 5 in the ABRSM system. Much of this was frustrating because of the unfamiliar meanings given to words by music theoreticians, for example describing an interval such as C to G to include both the start (C) and endpoints (G) (with D, E, F in between) rather than a gap between these points – a more conventional approach. This experience resulted in an autoethnographic publication in a respected journal (Page-Shipp & Van Niekerk, 2013a). Further work included a study, with Author 1, of the extent to which Music Theory novices acquired some Music Theory skills *en passant* in the period following acceptance into a university choir. Some work has also been done on the responses of university orchestral players to music notes written in various keys (Page-Shipp & Van Niekerk, 2013b). The current paper is part of this follow up.

4. Purpose of the study

The purpose of this study is to explore our premise that experienced choir conductors are aware of the value of a knowledge and understanding of elements of Music Theory for their choristers, and the teaching processes or procedures they employ to introduce Music Theory into the learning programme.

We follow the example in our earlier publications of describing development of Music Theory knowledge and understanding as *en passant* – it is not the primary purpose of a choir, and yet we have observed its importance as a teaching and learning strategy.

5. Research Questions

Questions covered several facets:

1. What value do experienced choir conductors attach to their choristers’ knowledge and understanding of Music Theory?
2. What aspects of Music Theory do conductors focus on and why?
3. What activities do conductors undertake, manage or promote to increase knowledge and understanding of Music Theory in their choir members?

6. Methodology

6.1. Ethics

The study was conducted in terms of the ethics requirements of the University of Pretoria. All interviewees were volunteers, received no payment and were promised anonymity.

6.2. Selection of conductors and choirs

The relatively small number of conductors who have significant experience working with internationally recognised choirs and who were available for study in South Africa led to the use of a purposive sampling approach. The selection of the 15 conductors studied was driven by:

- The authors' familiarity with appropriate internationally recognised choirs and their conductors, augmented by suggestions from some of the interviewees. This included some conductors who have worked extensively in South Africa, but now practise overseas.
- The number of conductors who agreed to be interviewed. Several appropriate participants declined.

In principle, we could have extended the search for interviewees, but the experience of authors 2 and 3 with such studies (Joseph et al., 2018; Page-Shipp et al., 2018a and b) is that a point is reached where further interviews, although potentially interesting for other reasons, do not add additional insights to the specific objectives of the study. This proved to be the case here: noting that most recent contributions had not provided such insights, we believed that the 15 diverse interviews had produced a broad picture and the considerable effort of finding further suitable and agreeable candidates and interviewing them was not warranted.

6.3. The conductor group interviewed

All the interviewees received most of their education in music teaching and conducting in South Africa and have both teaching and conducting experience within the country, although two have since relocated and were both interviewed via 3-way telephone conversations. They were included to extend the body of data collected and not to take advantage of their experiences in Europe, although their views were not noticeably different from those of the South Africa based contributors. The conductors covered a wide range of age and experience, as indicated in the tables below, which provide their biographical details and categorise the choirs.

Tables 1 and 2 confirm that the interviewees shared considerable experience, both in numbers of choirs they have conducted and of typical membership. The distribution in their ages was well balanced across the duration of a typical conducting career. The total number of choirs they had conducted (54) represented a substantial sample.

6.4. Interview planning and process

Studies of this kind can, in principle, be conducted by distributing questionnaires. However, the authors strongly support the contention by David Snowden in his Second Heuristic of Knowledge Management, viz that 'We can always know more than we can say, and we will always tell more than we can write down' (Snowden, 2002, p. 100). Our experience

Table 1
Age and conducting experience of the participant conductors.

Age (years)	30-39	40-59	>60
Number	5	5	5
Experience (years)	<19	20-39	>40
Number	6	5	4

Table 2
Character^a and number of the choirs conducted by participants.

Choir Members	Children	Youth	University	Adult Chamber ^b	Adult Symphony
Currently conducting	3	6	7	6	2
Previously conducted	6	10	5	9	
Total per category	9	16	12	15	2
Grand Total	54				

^a This refers more to age groups than institutions. All the choirs included members from several racial groups in the diverse society which is South Africa.

^b Includes church choirs.

in several such studies indicates that interviews always lead to richer discussion and make important provision for interviewees to raise additional issues. In the interests of uniformity among interviewees, however, we prepared an interview guide including essential features that needed to be discussed in interactions with the conductors. The interview structure can be seen from the approach described in the next paragraph. The process was guided rather than prescribed and we did not discipline the interviewees to adhere to the guidelines in the sequence of their responses, accepting all their comments and sorting them afterwards.

After obtaining basic biographical information, we established how the interviewees acquired their own familiarity with Music Theory. We then enquired whether they agreed that some knowledge of Music Theory is important/essential for competence in a choral singer; if so, what aspects they regarded as essential, and also what they did directly to develop/augment Music Theory knowledge in their singers. (For example, did they use a buddy system or assistant conductors/section leaders/more senior and knowledgeable choir members?) We wanted to know whether they checked on the main aspects of competence with Music Theory as part of their audition requirements and also how choirs, once admitted to their choirs, learn new pieces. Finally, we asked them if we had omitted questions that they had expected us to ask: this prompted further interesting information, although the initial answer to this question was most frequently 'No, not really'.

Initially each conductor was interviewed by either Author 2 or Author 3, in person or remotely via telephone. When the Covid-19 lockdown struck, both the interviewees and the researchers had more time available and both authors were able to jointly diarise and conduct 3-way telephonic interviews with the 14 remaining candidates. Participants were asked to make themselves available for a single interview of about an hour's duration. However, several interviews took longer, arising from a combination of additional comments provided by the conductors and/or the intensity of their engagement. As an experienced conductor, Author 1 did not take part in earlier interviews but was interviewed at the end of the series. Comparison of the interview reports drafted by authors 2 and 3 revealed no apparent major difference in style or content of reports from either author working solo. Also, no significant biases were detected due to the initial allocation of interview responsibilities to Author 2 or 3 or both. This was necessarily more a matter of judgement than analysis, but the combined 60 plus years of management and research experience of Authors 2 and 3 were taken as reliable credentials.

Interview duration ranged between 40 and 70 minutes. A digital transcription system made it theoretically possible to verify detail in compilation of the interview reports. A hope that these transcripts might provide an efficient way of compiling reports and analysing the data was, however, not realised. The software we used is predominantly devoted to business correspondence and the vocabulary employed by our interviewees, the variety of accents and occasional connection interference, militated against any direct textual analysis. To edit the vocabulary of the transcriptions into text suitable for analysis would

have been at least as time consuming as the initial recordings.

All interviews were conducted in English, in which all interviewees are capable although some have other first languages. This may also have contributed to challenges in digital transcription of the recordings, but they were nevertheless fully intelligible to the interviewers and were retained to support any further analysis that might have been required.

In all cases, one of the interviewers prepared a summary of the relevant responses, as related to the purpose of the study and the research questions, which was then reviewed by the other interviewer before being sent for checking and approval by the interviewee. Interviewees agreed that their comments could be quoted in this article but cited only with their formal approval.

To preserve anonymity, each conductor has been given a pseudonym from the Greek alphabet. Only two of the conductors were female and attribution of gender-specific names would have made them easy to identify as top female conductors are fewer in number in South Africa than males.

6.5. Data and analysis

As the number of interviewees militated against reliable statistical analysis, and there was a considerable degree of consistency in the views expressed, the analytical style used for the data was qualitative. All three authors read and re-read the digital transcriptions and listened to the recorded responses of our participants, noting references to the elements listed in the Interview Guide. These summaries were edited into a shared understanding of each interviewee's views. All the interviewees had agreed to verify the accuracy of our summaries, which they accordingly did. In a few cases they made minor amendments and several added new information that had occurred to them subsequent to their interviews. We are thus satisfied that the summaries were an accurate reflection of the interviewees' views.

7. Results and discussion

As the results are mostly provided in narrative format, the relevant question-specific results and some discussion of their significance are included in the following responses. A more general discussion is given at the end of this section. Although it became clear, early in the interviews, that the use of the term Music Notation better described the focus of this study, the more widely used term Music Theory has been retained.

7.1. Responses to research Question 1: what value do experienced choir conductors attach to their choristers' knowledge and understanding of music theory?

All the interviewees attached some value to knowledge of Music Theory. Alpha was emphatic that Music Theory as measured by Grade testing is too broad a concept because Grade examinations include much that is irrelevant to choral singing. 'What choir members need is an understanding of **notation**'. Others, while agreeing with this in principle, were less emphatic in their criticism, e.g. 'I'm more interested in musicianship than Grade exams.'

Several interviewees supported the generalisation that 'Music Notation – as a subset of Music Theory – is the (universal) language of music'. This was interpreted as the ability to 'read' a score, including the ability to find one's own part in a multi-part score. A generally occurring comment was to the effect that 'Good understanding of principles leads to good habits and the ability to solve one's own problems' (Kappa). All agreed that increasing understanding of Music Theory improves the rate of mastering new pieces.

The Music Theory needs of adult chamber choirs are mostly dealt with in that their members' experience in choral singing gives them a good degree of independence of simple memory-focused learning techniques, such as 'note-bashing', i.e. listening to a few bars of a piece and

repeating them until memorised. In some choirs, all members could sight read.

7.2. Responses to research Question 2: what aspects of music theory do conductors value most and why?

Interviewees were invited to provide unprompted comments but subsequently presented with the following list of elements as prompts: intervals, scales, stylistic characteristics, rehearsal/articulation/performance markings, musical terms, relationship of chords and their individual characters (major, minor, diminished, augmented, etc.).

Without prompting, almost all respondents specified 'intervals, 'chords' and 'rhythm' as important. 'Knowing the functions of chords helps in achieving balance' (Delta). Scales are seen as less important than most other elements as is the 'individual character' of the chords. Two conductors expressed the view that 'Focus on chords improves intonation' (Gamma, Eta). Stylistic characteristics (especially contour) and performance markings are important to most conductors.

In performance, most choirs sing mainly from memory. Gamma mentioned discouraging sight readers from singing from scores in performance because this 'prevented them from internalising the emotional content of the music'.

7.3. Responses to research Question 3: what activities do conductors undertake, manage or promote to increase knowledge and understanding of music theory in their choir members?

Responses to this question fell into three categories: Before acceptance, Immediately on appointment, and Ongoing Processes.

7.3.1. Before acceptance: checking music theory knowledge in auditions

All conductors, at all levels, look primarily for quality of the Voice and acuity of the Ear. Theory testing in auditions for youth and children's choirs was not encountered, and, although some university choir conductors make some checks, their expectations of familiarity with Music Theory are low. In most choirs, a firm requirement for extensive knowledge of Music Theory or the ability to sight read would be fatal for growth in the numbers in the choir. Gamma finds it valuable to test claims of sight-reading ability. Two conductors, Kappa and Eta, mentioned that, as they have become more experienced, they have lowered their expectations in this regard.

All applicants for choir membership are warned that they will be expected to learn their parts and, as well as listening to their performance during rehearsals, conductors Pi and Gamma check their competence by individual testing after an initial period. For adult choirs, some members of which have considerable experience, expectations were higher, but applicants were assessed more on their apparent ability to follow a score. Applicants who can sight read are the most welcome, although this is not often tested, reliance on recommendations from existing choir members being preferred. Trial periods for such adult choirs, formal and informal, are observed by the conductor and applicants who do not achieve expected levels are 'encouraged' to leave.

7.3.2. Immediately on appointment: tuition in music theory for new entrants

A measure of the importance of Music Theory in choral singing is that several conductors of university choirs invest considerable time, especially at the beginning of a year, in providing special tuition to novices: 'Worth spending time on getting everyone on the same page'. (Delta). In some cases, this includes dedicated weekend camps in the first semester'. This was particularly the case in those university choirs (Delta, Pi, Epsilon) where students with little to no knowledge of Western choral music were accepted because of their voices and their aural abilities.

7.3.3. Ongoing processes

7.3.3.1. Improving music theory understanding. In every choir, efforts that conductors make to teach Music Theory are aimed at moving towards greater understanding of the 'language of music' and a drive away from memorising and repetition. The sentiment 'we make music, we don't repeat it' (Gamma) was expressed by many interviewees.

Whereas teaching/training is not formal and overt, much useful learning takes place, during rehearsals and other interactions, in the style first characterised by David Elliott (1995, p. 61) as 'contextually and parenthetically'. Using context to teach is a style employed by all the conductors. Some choirs with large memberships use short Music Theory tutorials for new entrants before, during and after rehearsal. These tutorials are given in the context of the music being rehearsed at the time. For example, if there is a particularly difficult section rhythmically, a conductor would give a short tutorial explaining rhythmic concepts so that the singers can understand and implement their understanding as the rehearsal progresses.

Many university choirs in South Africa receive applicants, particularly those from the African musical tradition, with no background of working from scores, never mind knowledge of Music Theory. Despite this, the appetite of these new members for Western choral music, and their subsequent success in singing it, is significant. In most cases conductors of such choirs employ the weekend camps in the first semester to drill enthusiastic but novice choristers to progress from knowing only C major to other scales. This is supported by insights into 'the language of music'. This progress can be promoted by calling on the novices to focus on the production of 'correct sound', exploiting their 'good ears'. Delta emphasised the importance of 'showing love' to such students as a means of gaining their confidence and commitment. Some choristers learn well from their more experienced peers and many conductors exploit this by deliberately distributing more experienced singers in the choir to enable and reinforce this learning.

7.3.3.2. Teaching the choir new pieces. Interviewees were generally in agreement that 'understanding the language of music', not to mention the ability to find one's way around a score, is critical to the introduction of large amounts of 'new music'. They use various approaches to improve this ability, though all do use sheet music for teaching new pieces.

Providing recorded parts for choristers to use in learning new songs is controversial. Some conductors are vehemently opposed: 'One can only learn to read by reading' (Xi) and 'The imitation process hinders intellectual and musical development' (Eta). Others use this approach grudgingly and sparingly when there is time pressure, particularly if the recording features only Midi representations of the music. The general view is that learning a song is an ongoing process, although 'Every performance of a piece should be different' (Gamma).

All who use recordings are clear that the notes are all that will be learnt; converting them into music, with expression and clarity, is the work of the conductor. Unwanted imitation is reduced by teaching the words and the relevant rhythm before the notes are introduced.

Splitting the choir into voice sections for initial learning of parts is widely practised within the rehearsal, apparently because the influence of other singers and immediate follow-up by the conductor can reduce any harmful impact. A common technique (Beta and Alpha, particularly) is to play the full piece through (sometimes in 'chunks') and then repeat it, expecting the singers to follow their parts with the assistance of the score. A strong focus on the significance of notation elements in scores is sometimes augmented by 'note-bashing' although this is not used as a general principle.

Provision of links to good recordings of a piece is mostly acceptable.

8. The use of Tonic Sol-Fa¹

Tonic Sol-Fa has been widely used in South African schools and this tool may be well established in the approach of some conductors to both practical and theoretical understanding of music. They may even be accustomed to using it as a form of notation, rhythmically and especially melodically. The subject was not formally discussed in the interviews but arose spontaneously in 11 of the 15. Only 3 interviewees use Tonic Sol-Fa, the others not doing so because:

- They don't see the point of teaching it to those students who have developed their singing skills without it and where they have pianos or other instruments and recordings to act as tone references
- They observe it to be a dying practice.

9. Additional responses not directly addressed in the interview guide

9.1. Their overall role as conductors

Although not stated as one of the purposes of the study, many of the early interviewees volunteered comments on their perceived role. This led to regular discussion of this role which added to the study's value. The relevant comments can be grouped under two headings:

9.2. Development of choristers

The most common characterisation was of the conductor as a teacher or 'choral music educator'²(Beta, Lambda, Pi), seeking to empower the choristers as musicians. Others articulated this slightly differently, e.g. 'growing musicianship' in members (Eta). This was also characterised as the development of 'musicality and musicianship' by teaching principles and good habits so that singers can solve their own problems (Kappa).

9.3. Development of the choir

Some of the responses focused on the choir as an entity: 'Building an instrument' (Kappa), or 'Leading the choir to sing the music and not a sequence of notes' (Gamma). This could also go to a higher level: 'Going beyond sight singing to get to a deep emotional contact with the music' (Gamma).

Ways of achieving these ends could include: the drive to contribute to choir conducting as a calling (Epsilon) and arranging interaction with the composer (Chi). A very practical comment was a conductor's 'need to plan, without which rehearsals are more stressful than performances' (Mu) and 'realising that the task is 95-99% people management' (Theta).

10. Findings and discussion

10.1. The choral enterprise reflected in this study

The 15 interviews with experienced conductors created a picture of an enterprise which draws together individual singers, able to produce

¹ This is a particular system or pedagogical technique of teaching sight-singing.

² According to Varvarigou and Durrant (2011), "choral music educator" can be regarded as a synonym for conductor. Choir/choral directors/teachers (other synonyms) are essentially choral music educators as they need to pass on knowledge, including Music Theory, to their choristers. This is especially so with amateurs, and all the conductors interviewed for this article work with amateur choirs.

beautiful sounds at accurate pitches, around a set of instructions typically known as a score, that guides them to produce an emergent auditory experience that delights and gratifies all those involved, including any audience. The nature and amount of work required is closely related to the extent of the choristers' functional literacy in music by mastering the systematic vocabulary for describing and discussing key elements of the structure of music, thereby enabling them to be used in learning and singing Western choral music. Differently phrased, they learn the language of music, described for this purpose as Music Notation – a subset of the field of Music Theory.

The range of familiarity with the rudiments of music theory starts with beginners, who have little or no knowledge of Music Theory, possibly a result of their ages, and ends with capable sight readers, who can pick up a score, identify their part and sing it. The teaching/training³ of the most inexperienced commences with allowing them to hear their parts in the piece, either from an instrument like the piano or recordings or both, and to memorise them, so as to reproduce them on request. This rote-learning process is widely employed, with varying degrees of intensity, for all but the most expert sight singers. Yet most conductors are impelled to go to considerable effort to improve their singers' proficiency in working directly from scores, which obviously increases the speed at which they are able to learn new music, with minimal time-consuming input and clarification required during rehearsals. It also contributes to the individual musical development of the singers.

10.2. Profile of the conductor sample and their choirs

Apart from the large range of their age and experience, the group of conductors spanned varying categories and several choirs: between them they presently lead 24 choirs and the number they have previously led totals more than 30. Current choirs were the principal focus of the study, but past choirs were noted and sometimes featured in the discussion, for instance where differences in Music Theory competence were concerned.

The current choirs cover a wide range of geographical location, institutional home and age of choristers, the latter being somewhat correlated with experience, although there were significant deviations. The age (30–71 years) and experience (8–48 years) of the conductors also covered a wide range. This gave considerable richness to the responses, although there was no marked difference in views on the importance of Music Theory. 'Training choristers' and 'learning new pieces' sometimes attracted contrasting reports in 'young' as distinct from 'more mature' approaches. Where important, they are distinguished in this discussion.

To allow for this diversity, the 54, i.e. 24 plus 30, choirs were grouped for analysis, in four categories:

- Children's choirs, comprising sub-teens with good voices but not much Music Theory knowledge
- Youth choirs of adolescent members with a wider range of Music Theory knowledge
- University choirs with young adults, some of them accomplished musicians but not restricted to students with music majors or other specific qualifications
- Adult choirs, including chamber, church and symphony choirs, with members' ages ranging from 20s to retirees, usually with greater expectations or demands on their Music Theory literacy.

The challenges of leading these disparate choirs would be expected to vary considerably and the level of music literacy was reported as being very low for children, increasing up to the adult chamber choirs.

³ "Training" is used especially in the context of rote learning, as noted in the following sentence.

10.3. Importance of music theory

Most conductors were comfortable with the notion of Music Theory, comprising the elements listed in the Prompts (see above under **Responses to Research Question 2**). Only Alpha made an emphatic rejection of the term, inter alia because of its interpretation in Grade examinations. He emphasised that the 'language of music' is better focused on Music Notation, reflecting that one would not characterise the Russian alphabet as Theory of Russian. Other interviewees took the point but felt that the term Music Theory was normally associated by their choristers with notation, rather than other Grade examination elements such as Transposing Instruments.

When presented with the list of elements of Music Theory included in the Interview Guide – see Prompts above – many of the interviewees responded 'All of that'. Further questioning revealed a graded set of responses.

Primary: Note values and intervals

Secondary: Chords, Shape – including contour, rhythm, style, and mood. Scales only in relation to mood

Unimportant: Few conductors found it important for choristers to understand scales.

10.4. Evaluating potential entrants to the choir

The first step in training and developing a choir is to accept only the most promising candidates, typically by means of auditions. For primary school choristers, auditions are usually focused on the quality of voice and ear although some of the candidates have experience of music tuition, including Music Theory, whether at school or privately. However, to depend on this would severely limit the acceptance into choirs of pupils with good voices and inherent musicality.

High school candidates may include more pupils with some Music Theory background but there is often considerable pressure on conductors from parents to admit their offspring into school choirs, whilst administrators opt for choirs of size and quality to use as marketing for potential students. It remains necessary to focus on Voice and Ear in auditions and some contracted conductors depend on the teaching staff to convey the news of acceptance or rejection to the family concerned.

For university choirs, auditions still focus on Voice and Ear although more applicants are likely to have formal schooling in Music Theory. Auditions are more challenging at this level and may involve expecting candidates to sing short pieces played on the piano. The background of university choir members is dependent on the 'catchment area' which often determines the culture of the qualifying applicants.

Many highly successful choir members come from a background of African music, which typically does not include semitones. They nevertheless find Western music stimulating and respond well to efforts to help them over this hurdle.

Conductors of adult chamber choirs, including church choirs that perform something new each Sunday, tend to expect sight reading capability from their choristers, although many have a capacity to 'fake it' based on extensive experience. Referrals for admission by existing choir members are usually satisfactory, while some conductors accept applicants' claims at face value and evaluate their performance during rehearsals, discouraging those who prove unsuccessful from remaining.

11. Summary and conclusions

We established that two thirds (10 out of 15) of the experienced conductors have post graduate education. Most have choral singing experience themselves, and all play an instrument, with the most predominant being a keyboard instrument (piano/organ). Every single one uses sheet music but the large majority do not test sight reading or view it as important. Music Theory is mainly conveyed during rehearsals, through informal tutorials or basic explanation. Formal Music Theory is

largely not relevant although several mentioned the importance of teaching Music Theory concepts as they arose in the music. Four interviewees specifically mentioned that they see themselves as educators, not only conductors.

The large majority interviewed believe that auditions are important to test Voice and Ears (not Music Theory). Chords and particularly intervals are regarded as very important, especially for good intonation, according to two interviewees, who work mainly with choristers whose cultural background is African, and who struggle to hear and thus sing semitones accurately, because of the music they have grown up with. The majority use MP3 rehearsal tracks and reference recordings as an integral part of the learning process, although there are some who are very opposed to this practice. Almost all interviewees teach by rote, have sectional rehearsals, and do a great deal of 'note-bashing' although many believe this to have disadvantages in diverting attention from 'music' to 'notes'. Several interviewees have experienced singers stand next to those less experienced; these sorts of buddy systems are for both musical and social benefit.

Thus, this study's premise is confirmed – that experienced choir conductors are aware of the value of a knowledge and understanding of elements of Music Theory for their choristers and, where this is lacking, introduce it *en passant*.

The study continues an exploration of the means whereby singers can obtain functional literacy in Music Theory without formal study. Barrett et al. (2019) showed that members of an internationally recognised university student choir significantly improved their music-theoretical knowledge of intervals as a by-product of their choral involvement. This research extended this understanding to the expectations that experienced choir conductors have of the competence of their choristers in the wider context of Music Theory and the means they employ to raise this competence to a functional level. The outcome of the interviews may be useful to conductors generally, but especially to those embarking on this responsibility and with an awareness of the importance of educating their choristers, not only seeing them as cogs in a performance machine.

The responses of the interviewees were all generous and open, with a wide range of relevant topics being included in the conversations. The resulting inputs both form a valuable resource for this study and lend themselves to inclusion in further studies.

As noted previously (Barrett et al., 2019, p. 2), there is much literature available on aspects of choir singing such as its spread worldwide, across ages, and its extensive range of benefits. However, little is available in connection with the teaching and learning of Music Theory and its advantages for conductors and choristers. We demonstrated this fact, in the abovementioned article, even when such information could have been anticipated, and with reference to the following authors on choral pedagogy: Bennett Walling, 2016; Fautley, 2017; Freer, 2009; Paulk, 2004; Rao, 2012; Varvarigou, 2016; Yarbrough, 2002; Zielinski, 2005. When prompted, all interviewees indicated some consciousness of the value of Music Theory knowledge and understanding for their choristers, for greater rehearsal efficiency and for improving performances. As the topic was pursued, overwhelming evidence of *en passant* teaching and learning emerged. The interviewees reported diverse and significant views on the topic: some even indicated gratitude that we had focused their interest on this aspect, and the intention of bearing it more explicitly in mind going forward, as a result of their interviews.

It would appear clear from the lack of material in the existing literature that, despite a vague general acceptance that understanding of Music Theory can have value in choral work, new literature needs to be generated on Music Theory's role and importance in choral singing, plus the role of the choir conductor teaching/helping to generate such understanding. The need for literature is not only because amateur choristers typically demonstrate reluctance to undertake formal studies in Music Theory, but also because conductors currently have few role models available to follow in the promotion and facilitation of Music Theory learning, how best to do it methodologically, and what content

to concentrate on most profitably.

12. Positive elements and shortcomings of the study

The number of experienced conductors interviewed was small, but their experience was both deep and wide. The interviewees were satisfied that the last few interviews added little to the picture that had already emerged. The research team therefore felt that extending such a labour intensive study would not significantly enhance its usefulness.

Although the option of using a questionnaire-based study was considered, we expected that the interviews would prompt thoughts that had not been anticipated. The added richness of the information confirmed this.

The research focused on South African conductors, although two of the interviewees are not currently working in the country. Interestingly, the comments of the Europe-based contributors showed no particular bias away from the overall picture.

13. Recommendations

Where most conductors focus a great deal on interpretation, teaching choristers about stylistic characteristics is an important aspect of music theory which particularly lends itself to *en passant* learning. We have not to date attended to this facet in particular but intend doing so in further research. Investigation should also be undertaken as to the influence of conductors on the personal musical development of the singers. This could include individual performance in any choir and the appreciation of choristers of the blend of voices and the overall sound.

As we develop and publish our investigations into the heretofore under-reported Music Theory aspects of choir conducting, we propose that these contributions can in due course reflect in future choral music education curriculum and teaching/training manuals.

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CRediT authorship contribution statement

Michael Barrett-Berg: Conceptualization, Methodology, Formal analysis, Writing – original draft, Writing – review & editing, Supervision. **Caroline van Niekerk:** Conceptualization, Methodology, Formal analysis, Investigation, Writing – original draft, Writing – review & editing. **Roy Page-Shipp:** Conceptualization, Methodology, Formal analysis, Investigation, Writing – original draft, Project administration.

Declaration of competing interest

The authors have no competing interests to declare.

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