

# Béla Bartók: The Jekyll and Hyde of Hungarian music

Helen Kasztelan Chapman

Charles Darwin University

## Abstract

It is almost as if there are two Bartóks – the amiable collector of Hungarian folk music and the ‘infernal’ barbarian intent on destroying the music of the past (Gillies, 2010). These two sides of Bartók’s character may be seen in such disparate works as *The Miraculous Mandarin* (1919) and his *Suite No. 2, Op. 4* (1904-07). The confronting modernism and controversial subject matter of the former provide a stark contrast to the mild astringency and post-Romantic lyricism of the latter. The aim of this qualitative study is twofold: firstly, to gain a deeper understanding of why Bartók’s music tends to be overlooked by Australian piano teachers and, secondly, to examine the technical aspects of teaching this music. Bartók’s music has been described as elitist and difficult to understand (Alsop, 2007; Milne, 2010; Nissman, 2002; Oestreich, 1990; Suchoff, 2004) and the literature suggests that this may not be an exclusively Australian problem.

## Introduction

As a pianist and teacher with more than 25 years’ experience in examining and adjudicating piano students, I have found that most people don’t relate to the piano music of the post-tonal Hungarian composer Béla Bartók (1881-1945). Even though Bartók’s music is highly regarded and his ‘small-scale’ piano works have been recognized globally as pedagogically significant they tend to be overlooked by music studio teachers. The paper is part of a PhD study to investigate why Bartók’s music has been marginalized in an Australian context.

## Background

Bartók’s musical language is variable and complex (Antokoletz, 1988; Gillies, 2010). The early works, composed prior to 1904-5, show the influence of nineteenth-century Romantic composers such as Johannes Brahms (1883-1897), Franz Liszt (1811-1886), and Richard Strauss (1864-1949). However, Bartók’s musical language began to change after his discovery of authentic Hungarian folk music in 1904 and his encounter with the music of Claude Debussy (1862-1918) in 1907. Over the course

of the next decade, Bartók’s language evolved to symbolize a synthesis of East and West, and this synthesis is especially evident in the works composed from 1926 onwards (Antokoletz, 1984; Suchoff, 1993). These influences first coalesced in his *Fourteen Bagatelles Op. 6* (1908), which were hailed by the composer Ferruccio Busoni (1866-1924) as “at last, something truly new” (Antokoletz, 1993). Nonetheless, despite the influence of progressive trends in Western art music, the distinguished Bartók scholar Halsey Stevens observed that while Bartók’s experimentation with twentieth century devices such as non-triadic harmony, dissonance and bitonality was, in many ways ahead of his contemporaries, these considerations were insignificant when compared with the influence of folk music (Stevens, 1964, rev. 1993).

Bartók composed a significant body of pedagogical works for piano. While the *Mikrokosmos* are the most well-known of his pedagogical works for piano, between 1908 and 1913 Bartók also wrote *Ten Easy Pieces* (1908), two volumes *For Children* (1908-1909), and *First Term at the Piano* (1913), which includes 18 pieces selected by him from the joint Bartók-Reschoffsky

*Piano Method* (1913). We can distinguish two key periods in the development of Bartók's writing for the piano. The first occurred between 1908 and 1920 and the second was in 1926 and continued until his death in 1945. During the intervening years, apart from the two sonatas for Violin and Piano (1921-1922), *Dance Suite* for Orchestra (1923) (which he also arranged for solo piano in 1925) and *Village Scenes* (based on Slovak songs for female voice and piano, 1924), there was a hiatus in compositions for piano which was broken in 1926, with the piano *Sonata*, *Out of Doors*, *Nine Little Pieces* and *Piano Concerto* No. 1.

While the piano works composed in the first period between 1908 and 1920 demonstrate many of the key elements of Bartók's mature musical language, evident in the works from 1926 onwards, there is an unmistakable range and diversity in compositional style which can make this music difficult to teach. At the two extremes of Bartók's diverse compositional styles are works such as *The Miraculous Mandarin* (1919) and *Suite* Op. 4 No. 2, for orchestra (1904-7). The confronting modernism and controversial subject matter of the former provide a stark contrast to the mild astringency and post-Romantic lyricism of the latter, which can give a listener unfamiliar with Bartók's music the impression of a Jekyll and Hyde character.

Bartók's *Two Portraits* Op. 5 of 1911, *One Ideal* and *One Grotesque*, for violin solo and orchestra, provide an unequivocal example of this Jekyll and Hyde aspect of Bartók's musical character. However, while it may be convenient to consider Bartók's works in terms of these two extremes, contrast in musical temperament and character are not unique to Bartók. Hector Berlioz's *Symphonie Fantastique* Op. 14 (1830) is a program symphony which similarly contains both ideal and grotesque portraits. While it may be argued that the extreme contrasts in Bartók's music were stylistic, transcending the more superficial dimension of temperament and character or programmatic effects, the music of other composers, such as Bartók's contemporary, Igor Stravinsky (1882-

1971) also demonstrate dramatic changes in compositional style. Nevertheless, Stravinsky's stylistic shifts, unlike those of Bartók, demonstrate a sense of homogeneity within the context of three consecutive compositional periods: the first primitivist period, influenced by Russian folk music, the second neo-classicist period (1923-1951), and third serial period (1951-1971). In her book *Bartók and the Grotesque*, Brown (2007) explores the concept of stylistic hybridity in Bartók's works, postulating that the tensions between East and West, Tonal-Atonal-Modal as well as High and Low in his music are interrelated. Even though these tensions in Bartók's style can be traced across time, in his piano music they seem to be most extreme in the works composed between 1908 and 1920, representing a significant range in variability and what may be described as experimentation.

In 1948 the music critic Cecil Gray reflected that he found the composer's change in style in the works from the 1910s and early 1920s to be 'highly disconcerting' and difficult to listen to: "much, if not most of his middle-period music, has always been personally antipathetic to me, in marked contrast to my feelings with regard to the early and late works" (quoted in Gillies, 1990, p. 68). Even today, audiences continue to struggle to engage with the more abstract and avant-garde side of Bartók's musical personality (Alsop, 2007), and especially with the works from the 1910s (Gillies, 2010), which suggests that this may be a world-wide phenomenon. It can be difficult to reconcile the 'nice' Bartók, who we identify as the amiable collector of Hungarian folk music with the 'nasty' Bartók, an 'infernal' barbarian intent on destroying the music of the past (Gillies, 2010). A pianist might well ask "How could the composer of the perennially popular and engaging *Romanian Folk Dances* (1915), write something as diabolical as the *Allegro barbaro* (1911) or three *Etudes* for piano, Op. 18 (1918)?" A teacher might ask "Where do I begin?" The piano teacher, therefore, faces a challenge in demonstrating the pedagogical value in learning Bartók's post-tonal piano music.

## Why teach Bartók's music?

Kabalevsky's pedagogical works for piano are well-known to music studio teachers (Jacobson, 2006). Despite the novel harmonic and melodic quirks in Kabalevsky's music for children, it is strongly grounded in tonality. Notwithstanding its idiosyncrasies, or perhaps because of them, Kabalevsky's music for children reframes tonality in a fresh and engaging manner, rendering these pieces immediately accessible and engaging (Forrest, 1996). In comparison, some of Bartók's music for children can sound almost atonal. While the pieces which children usually relate to best are those in which the folk music element is most evident, there is value in also exploring the more abstract works which can be beneficial in challenging students' assumptions about music. Further, Bartók's music can provide teachers with an opportunity to expand their curriculum and teach quality music that does not belong to the established Western piano canon. The advantages in doing this include the opportunity for teachers to reflect upon their teaching practice as well as to encourage their students to problem solve, explore fresh sounds, and grapple with musical challenges.

Bartók was a teacher and performer who had firsthand experience of learning, teaching and performing twentieth century music (Horan, 1957, pp. i-ii) and the progressive piano pieces in his pedagogical collections are graded so as to gradually accustom an 'untutored' ear to twentieth century sounds (Suchoff, 1993, p.193). The pedagogical value of Bartók's works for piano is manifest in their inherent structural logic, equal division of melodic material between the hands, range of articulations, variety of technical challenges, and opportunities to explore pianistic sonorities. In addition to opening up children's ears to new sounds encountered in scales that do not belong to the standard major and minor forms of tonal music, there is sufficient rhythmic, harmonic, and textural variety to maintain the student's interest and stimulate intellectual curiosity (Jacobson, 2006).

## Literature Review

The wide range and complexity in musical styles that characterize Bartók's music has resulted in a diversity of analytical approaches intended to explicate structure and coherence in his instrumental, orchestral, vocal, and stage works as well as piano repertoire (Antokoletz, 2011; Gillies, 1993). These include approaches that take into consideration musical proportion and the ratio of the Golden Section (Howat, 1977; Lendvai, 1971, 1983), symmetrical pitch collections (Antokoletz, 1995; Forte, 1960), and approaches based on Schenkerian linear voice leading principles (Salzer, 1962; Travis, 1970), among others. While it may be argued that one way of understanding music is through analysis, the analytical language and complexity of the methods listed above requires specialist training and is generally inaccessible to most instrumental students preparing for practical examinations.

In Australia, instrumental examinations boards such as the Australian Music Examinations Board (AMEB), Australian and New Zealand Cultural Arts (ANZCA), Associated Board of the Royal Schools of Music (ABRSM), and Trinity College London (TCL), provide graded public examinations which furnish teachers with an objective external assessment tool to measure the achievement and progress of their students. Students entering for practical examinations usually prepare a program of three to four contrasting pieces representing different musical styles. In addition to an examination of technical work and aural and sight-reading, students presenting for AMEB and ANZCA practical examinations are also required to answer general knowledge questions about the pieces that they play. In the earlier grades, students are tested on their knowledge of keys, terms, and signs in the music. In the higher grades and diplomas, students are required to demonstrate an understanding of the background and structure of their selected works. From my experience, students usually cram this information by rote in the weeks immediately prior to the examination and when tested, rarely

demonstrate a genuine understanding of the facts they have memorized.

This is problematic if one takes the view that analysis can be a powerful tool in understanding the structure of work, as a support for interpretative decisions and assisting in accelerating skill acquisition during the early stages of learning. However, with established performance practices supporting musical styles from the Baroque, Classical and Romantic periods, teachers can usually shepherd their students through these stages of preparation without the need for a theoretical or analytical understanding of the music they play. Where a performance or pedagogical tradition does not exist, as for example in the music of some post-tonal composers such as Bartók, teachers as well as students require greater support if they are to successfully engage with this music.

It is difficult to find a single theoretical framework for teaching Bartók's piano music from this period, and analytical approaches that label themes, modes, and form can easily become overburdened with detail in the more complex pieces. Currently music theory and practice are taught as separate subjects in music institutions and fusing these in a piano lesson has not been the norm. Similarly, music theory and practice are listed as separate subjects in the syllabi of music examinations boards (AMEB, 2017; ABRSM, 2016, 2018; ANZCA 2018a, 2018b; TCL, 2008, 2017a, 2017b). Whilst candidates are required to answer general knowledge questions at all levels of AMEB and ANZCA practical examinations, this is not a mandatory requirement for ABRSM (2016, 2018) or TCL (2008, 2017a).

Even though AMEB (2008, 2014), ABRSM (Barratt et al., 2016), and TCL (Lidiard & Fitch, 2017) publications, as well as study notes prepared by Hamilton (2005, 2006, 2015a, 2015b, 2015c, 2016, 2017) and textbooks (Jacobson, 2006; Nissman, 2002; Yeomans, 1988) are available to support teachers to teach Bartók, it is rarely performed. An investigation of practitioners' lived experiences was needed to learn more about piano teachers' understandings of the place of Bartók's music in Australian instrumental music education.

## Methodology

Critical discourse analysis informed by Foucault's (1972) approach to discourse is used as the theoretical framework for the study. Foucault's notion of the regime of truth, which questions the concept of truth as fixed, provides the basis from which to challenge established views and reassess the music on its own terms and not from a Western-centric point of view. The established piano canon tends to privilege Western music from the common practice period and works which are perceived to be abstract and dissonant are performed less frequently than the works of composers such as Bach, Beethoven, or Brahms. This means that some voices may be ignored or not heard, resulting in the marginalization of concepts, cultures or opinions.

Thematic analysis, according to Braun and Clarke (2006) using both inductive and deductive processes, is used to maintain transparency and identify patterns of frequency in the preliminary analysis of data collected from online questionnaires, a focus group, and interviews.

## Data Collection

Ethics Clearance to conduct this investigation was obtained from Charles Darwin University (CDU) and the data was collected between July and September 2017. Data was collected from two online questionnaires, a focus group, and 15 interviews with music professionals and field experts, including academics, music educators, piano teachers, composers, performers, teacher practitioners, piano examiners and adjudicators. The participant pool was drawn from delegates attending the the Australasian Piano Pedagogy Conference 2017 (APPC 2017) held at the University of Adelaide, from 10 to 14 July, and members of the Victorian Music Teachers' Association (VMTA). The APPC 2017 Conference provided the opportunity to recruit participants representing a broad range of expertise and views, from Australia, United States of America, Canada,

Singapore, China, New Zealand and the United Kingdom. One online questionnaire was sent to APCC 2017 delegates and a second to members of the VMTA.

There were, in total, 66 respondents to the two online questionnaires. The questions were designed to collect background information regarding age range, gender, and training of the teachers. Open-ended questions were designed to learn about participants' perceptions of Bartók. A profile summary of questionnaire participants is given in Figure 1. The focus group data was collected at the APCC Conference. While there were only three participants, each representing a different level of engagement with students, see Figure 2, the group provided rich data and was included in this study. The interview participants represented a wide range of expertise from the tertiary, secondary and independent sectors, see Figure 3. All interview participants were piano teachers or had taught piano. The interviews provided an opportunity to explore in more depth teachers' experiences and approaches to engaging with the music of Bartók.

## Results and Findings

First, responses to the online questionnaires will be examined. Next, this will be followed by a discussion of the data collected from the focus group and interviews. Across all three data sets, technical, aesthetic, and pedagogical issues dominated the discourses. While participants positioned Bartók as the 'other', competing and conflicting discourses revealed that perceptions of his music were complex and entangled. Participants' engagement with Bartók's music was often contingent upon issues such as teaching to the test, the commodification of education, the 'other', fear of the unfamiliar, perceptions of sounds as pleasant or unpleasant as culturally contingent, and the importance of musical education in opening students' ears to new sounds. For a schedule of questionnaire, focus group and interview questions refer to the Appendix.

## Online questionnaires

Participants' responses to open-ended questions in

**Figure 1: Profile summary of questionnaire participants.**

<b>APCC 2017</b>		<b>VMTA</b>	
Principal Role	N	Principal Role	N
Student	6	Student	0
Instrumental Teacher	28	Instrumental Teacher	28
Performer	13	Performer	11
Music Editor	15	Music Editor	14
Academic	2	Academic	2
		Classroom Music Teacher	4
Other (Alexander Technique)	1	Classroom Teacher	2
Pianists	34	<b>Pianists</b>	28
Non-pianists	0	Non-pianists	4
<b>Gender</b>		<b>Gender</b>	
Male	3	Male	7
Female	31	Female	25
N = 34		N = 32	
Total N = 66			

the online questionnaires suggested that for some piano teachers, their only experience of Bartók had been through *Mikrokosmos* – Bartók’s most well-known pedagogical work for piano – a six volume collection of 153 progressive piano pieces. However, as the renowned composer and piano teacher Elissa Milne observed: “of all the composers in twentieth century it seems that Bartók is the one we piano teachers revere the most ... and we reserve our highest regard for ... the *Mikrokosmos* ... yet – we very rarely, if ever, teach from it” (Milne, 2010, paras. 1-4).

This sentiment was echoed in many of the

responses, with one participant writing: “I don’t love Bartók, sorry, though I confess my knowledge of his music is narrow”. Other participants also admitted to little or limited engagement with Bartók’s piano music. Typical of such comments is: “the most interaction I’ve had with Bartok is his *Mikrokosmos*”; another “[I] would be interested to find a way to incorporate his music at a wider level into my teaching practice as *Mikrokosmos* has been unsuccessful for me to date, despite owning two volumes of *Mikrokosmos*”. Consequently, a number of critical judgments were related to participants’ limited knowledge of Bartók repertoire for piano.

**Figure 2 Profile summary of focus group participants**

Focus Group Participant	Principal Roles	No	Sector	Geographical Location
FGP1	Accompanist, Adjudicator, AMEB Examiner, Instrumental Music Studio Teacher, Performer, Theory Teacher	1	Non-government secondary school	Australia
FGP2	Accompanist, Adjudicator, Lecturer, Instrumental Music Studio Teacher, Performer	1	Tertiary	Australia
FGP3	Classroom Music Teacher, Instrumental Music Studio Teacher, Theory Teacher	1	Non-government secondary school	Australia

**Figure 3 Profile summary of interview participants (N=15)**

Principal Role	Sector	Geographical Location
Academic Research Fellow	Tertiary	Australia
Head of Performance and Keyboard	Tertiary	Australia
Specialist Keyboard Lecturer Advisor	Tertiary	Australia
Senior Lecturer in Piano	Tertiary	Singapore
Senior Lecturer	Tertiary	Australia
Teaching Assistant	Tertiary	Canada
Classroom Music Teacher	Secondary (NG)	Australia
Director of Music	Secondary (G)	Australia
Head of Piano	Secondary (NG)	Australia
Head of Piano	Secondary (NG)	Australia
Senior Piano Teacher	Secondary (NG)	Australia
Instrumental Music Studio Teacher	Independent	Australia
Instrumental Music Studio Teacher	Independent	Australia
Composer	Independent	United Kingdom
Composer	Independent	Australia

Some participants' negative perceptions of Bartók's music could be linked to their situating Bartók as the 'other', and not belonging to the established canon. The following quotation typifies this viewpoint: "[I] struggle to have pieces from *Mikrokosmos* selected by my students. The work is too foreign for their ears and not sufficiently motivating to learn - or else I am not committed enough to push them to explore it!". The following comment from another participant encapsulates reactions to Bartók, that are culturally contingent: "Foreign, discordant, jarring, unpleasant, why would anyone choose to play this music?" Some participants found Bartók's notation difficult: "I don't play pieces by Bartók as I don't enjoy the sounds made and [it] requires a lot to read due to so many accidentals".

## Approaches to learning, teaching and performing Bartók

Participants typically lacked an approach specific to learning or teaching Bartók. For example, the following statements represent the views of several participants: "Hands separately. Practice slowly and exactly what is written on the page"; or "no different to other composers"; and "adhering to the articulation on the score - if it says accent, play an accent, if it says piano, play softly". Another participant wrote: "No, very unsuccessful at this". Nonetheless, some participants were open to learning a new approach as illustrated in the following quotation: "No [I don't have an approach to teaching Bartók], but I should like to acquire one". Some participants had developed individual approaches. One participant wrote: "I normally pull the music apart and isolate the different musical ideas to help to understand the interweaving of the different melodic, harmonic and rhythmic ideas". Analysis was deemed a significant factor in developing an approach to teaching and learning Bartók, as seen in the comment: "Trying to understand the structure, and any recurring rhythmic elements before learning the notes is very useful".

Several participants cited understanding the cultural context of Bartók's music to be an important consideration in learning and teaching his music. Comments of this type are characterized by the following quotation: "listening to Bulgarian/Hungarian folk music and watching video of folk dances". Modelling Bartók's music through demonstration was also considered to be an effective teaching strategy, as illustrated by this statement: "when I show students how they [pieces in the first book of *Mikrokosmos*] can be shaped expressively, they become excited to explore these mini-masterpieces".

Technical barriers to learning and teaching Bartók's music described by some participants related to complexities in rhythm and articulation. One participant described an approach to overcoming such technical barriers: "I break them [rhythms] down and I assign words the kids can relate to, so they associate rhythms with words, and it's easier for them to assimilate what's going on. For articulation I do colour coding of all the accents, staccatos, sfz, etc". Bartók's music was used by some participants to extend their students' technical skills: "I use the six books of *Mikrokosmos* as studies, exercises, sight reading and performance for students throughout their tuition". This same participant observed: "If introduced early in a students' learning, I believe Bartók and other composers' works can be more approachable".

Most participants did not have an approach to learning or teaching Bartók's music, illustrated by the following comment: "I would need to play more Bartók to develop an approach to his music. And listen more. It has not been a priority, by default, not design". Another participant's observation summarizes a view expressed by several respondents to the online questionnaires: "I still don't understand Bartók's language and I find it fearful to both teach his music and play his music".

## Focus group and interview data

The focus group and interviews provided the opportunity to speak with participants in greater

depth. In the following discussion, focus group participants will be identified as FGP1, FGP2, and FGP3. Interview participants are referred to as Interviewee A, Interviewee B, Interviewee C.

Time constraints, needing to teach to the test, and unfamiliarity with Bartók's musical language were amongst the issues explored during the focus group discussion. These points were summarized by FGP2: "As teachers we tend to generally fall back to what we are familiar with ... if I'm really going to teach the Bartók, I'm going to have to sit here and dissect the tune, or I'm going to have to do more aural development of that ... The student's going to struggle with it. It'll take six weeks to learn the wretched thing. If I give the student this other one, that was written in 1760, it'll be learnt in three days."

Some participants situated Bartók as technical and viewed his music solely in terms of developing pianistic technique: "as a nine-year-old, I was exposed to Bartók immediately. His exercises mainly. I then incorporated those as exercises in my tutelage, as well. Not so much his pieces, but his exercises". (Interviewee D). Others considered the physical and mental challenges in playing Bartók's advanced works: "if you're talking about the difficult pieces, it's basically the stamina that the student needs for the sound" (Interviewee E); and, "as a performer, I must say I found a lot of Bartók music hard to memorize ... because you haven't got that sort of formula type music that follows a lot of patterns" (Interviewee M).

FGP1 referred to the physical demands in playing and teaching selected works: "[the Sonata is] probably the only piece I've ever done that potentially hurt my hands ... So, I am aware with any students ... as it is one of those pieces with big chords in it, and very loud music and big stretches that I don't overdo it". However, when speaking about the less advanced works, especially those composed for children, Interviewee F observed that: "some of it is quite physical on the keyboard in the way it fits on the hand. I think a lot of Bartók's music does fit on the hand well because he himself was a fine pianist".

Technical perspectives that had a theoretical orientation identified Bartók as important for teaching composition: "I think for students just to understand writing, Bartók would be perfect to study in terms of compositional device and structure" (Interviewee L). Understandings of musical structure became entangled with some participants' pedagogical approaches to teaching Bartók's music. For example: "it's quite good music to be able to break down analytically a little bit so that students can understand component patterns and rhythmic patterns and melodic patterns" (Interviewee A); and, "Maybe in the beginning my first teacher did show me the fact that it was well structured and was patterned and straight forward and if all you had to do was unlock those patterns. Once you could see that, then the structure is actually quite obvious" (Interviewee F). This participant had been taught by a pupil of Bartók.

Bartók's music was often judged as pleasant or unpleasant based upon participants' culturally contingent perceptions of sound. The importance of musical education, however, held the potential to mitigate previously held prejudices, stimulate intellectual curiosity and open students' ears to new sounds. The next observation reveals how perceptions can change over time together with exposure to new sounds, concepts, and ideas: "when I was much younger I thought Bartók was a really dissonant and difficult composer but coming back to him now I can't believe that I ever found him difficult. Because, obviously times have moved on and Bartók suddenly sounds quite comprehensible" (Interviewee B). Similarly: "I remember, as a high school student, proclaiming that I absolutely hated every twentieth century work ever written ... it's just that I hadn't been informed you know. So, as I get older, I actually adore twentieth century music so, I think just trying to open up students' minds is my primary role" (Interviewee C). Bartók's music was also considered by some to provide a convenient segue to twentieth-century art music: "I think Bartók's music is a bridge to connect traditional Classical music and contemporary music". (Interviewee H).

Most participants with non-Western backgrounds – Mainland China, Malaysia, Singapore, Croatia and Ukraine – found Bartók accessible: “the smaller works intended for children will be automatically accessible. Some [of the] *Mikrokosmos* are taken from folk music – definitely students will [find these] easier to access” (Interviewee E); and “I suppose that propensity to being engaged with different sound worlds came from that mix I had as a child which certainly wasn’t contemporary Classical music – and the Classical music was quite limited really” (Interviewee N). Another participant commented: “When I show it [Bartók] to students with an Asian background, they tend to take it quite well”. This participant also commented on the hybridity – East and West – in Bartók’s compositional style: “[the melody in *Evening in Transylvania*] sounds Chinesey, but not the harmony: the harmony has twentieth-century elements” (Interviewee I). However, the following comment is typical of the challenges most participants and their students faced when engaging with Bartók: “the first barrier was to understand the language. The music he wrote for young students was actually musically more challenging because it wasn’t Romantic. It didn’t seem to have the same predictability [as traditional Classical music].” (Interviewee L).

Pedagogically, music studio teachers are often driven by a need to teach to the test, limiting opportunities to select Bartók works for their students. As one participant observed: “I can’t say that I teach a lot of Bartók ... um ... the *Mikrokosmos* ... I guess that I probably teach to the AMEB exams” (Interviewee K). This was also the case in a tertiary setting: “I think it’s still a very traditional curriculum which prioritises music of many centuries ago” (Interviewee C). Despite scope for selecting twentieth century repertoire, advanced students were also described as having conservative tastes: “sometimes it’s a bit of a hard sell to do anything post Debussy” (Interviewee A).

The connection between culture, language and music, was touched upon in one reflection: “sometimes I look for Hungarian players [when

listening to recordings of Bartók] because I feel that there is something about speaking the language the composer spoke. That somehow, they understand then the musical language better” (Interviewee F). This quotation illustrates that at times cultural perspectives were entangled with pedagogical considerations. A link between interpretation, performance, and musical structure was made by another interviewee: “one actually has to try and sort out the music and try and figure out the *raison d’être* of the piece. What am I trying to bring out? Where is the line? What articulation should I be using? What is the goal note of this phrase? Where are the climaxes in the piece? What approach should I be using to pedalling?” (Interviewee O). The next observation contextualizes the participants’ experiences in studying abstract late twentieth-century works, it is equally relevant in arguing for the value of studying Bartók’s works, which most participants regarded to be outside the established Western piano canon. “What I’ve found from having to forensically examine the scores of late twentieth century composers and trying to make sense of the music informed my performance practice of earlier music as well” (Interviewee O).

## **Towards developing a new conceptual approach to teaching Bartók’s piano music**

I began to think that if people were aware that Bartók writes in different styles, this might make a difference to how they approached his music. As part of my thesis, I have found that I could classify Bartók’s piano music according to three broad stylistic categories which I have labelled traditional folk, neo-folk, and contemporary. Works categorized as traditional folk are based on folk music; neo-folk works are written in the style of folk music; and contemporary works combine elements of folk music with twentieth century compositional techniques. Examples of works written in a traditional folk style include the collection *For*

*Children* (1908-9), and *Romanian Folk Dances* (1915). Works classified as neo-folk include Nos. 5 and 10 from *Ten Easy Pieces* (1908), and the first movement of *Suite Op. 14. Three Studies Op. 18* (1918) and *Improvisations Op. 20* (1920) may be categorized as contemporary and represent examples in which folk and atonal elements collide.

In Figure 4, I have categorized the piano music from 1908-1920 according to these three classifications and graded them according to their level of difficulty as elementary, intermediate,

advanced and very advanced. Students and teachers unaccustomed to twentieth century Western art music, may find that Bartók's folk inspired pieces provide a comfortable segue to explore this new terrain. The folk music arrangements are the most accessible works and provide an entry point to Bartók's music. Knowing where these pieces are situated along the continuum of accessibility would, I think, be useful for piano teachers seeking to introduce their students to Bartók.

**Figure 4: A categorization of Bartók's piano works composed between 1908 and 1920**

	Traditional Folk	Neo-Folk	Contemporary
<b>Elementary</b>	<i>First Term at the Piano Sz 53, BB 67</i> (1913) 18 pieces from the <i>Bartók-Reschofsky Piano Method Sz 52, BB 66</i> (1913) Nos. 7, 10, 12, 13, 15, 16 <i>For Children Sz 42, BB 53</i> (1908-9) Vol. 1/1-21 (Hungarian) Vol. 2/1-22 (Slovakian)	<i>First Term at the Piano Sz 53, BB 67</i> (1913) 18 pieces from the <i>Bartók-Reschofsky Piano Method Sz 52, BB 66</i> (1913) Nos. 5, 6, 9, 11, 17, 18.	<i>First Term at the Piano Sz 53, BB 67</i> (1913) 18 pieces from the <i>Bartók-Reschofsky Piano Method Sz 52, BB 66</i> (1913) Nos. 1-4, 8, 14.
<b>Intermediate</b>	<i>For Children Sz 42, BB 53</i> (1908-9) Vol. 1/22-40 (Hungarian) Vol. 2/23-39 (Slovakian) <i>Ten Easy Pieces Sz 39, BB 51 Nos. 1, 3, 6, 8</i> (1908) <i>15 Hungarian Peasant Songs</i> (1914-18) <i>Sz 71, BB 79</i> <i>Sonatina Sz 55, BB 69</i> (1915) <i>Romanian Folk Dances Sz 56, BB 68</i> (1915) <i>Romanian Christmas Songs Sz 57, BB 67</i> (1915)	<i>Ten Easy Pieces Sz 39, BB 51 Nos. 5, 10</i> (1908) <i>Fourteen Bagatelles Op. 6 Sz 38, BB 50 Nos 4 and 5</i> (1908) <i>Seven Sketches Op. 9b, Sz 44, BB 54 Nos 5, 6</i> (1908-10)	<i>Ten Easy Pieces Sz 39, BB 51</i> (1908) Dedication, Nos. 2, 4, 7, 9 <i>Fourteen Bagatelles Op. 6 Sz 38, BB 50</i> (1908) <i>Seven Sketches Op. 9b, Sz 44, BB 54, Nos. 1, 2, 3, 4, 8</i> (1908-10)
<b>Advanced</b>	No Bartók works listed.	<i>Suite Op.14, Sz 62, BB 70, I</i> (1916)	<i>Three Burlesques Op. 8c, Sz 47, BB 55</i> (1908-11) <i>Suite Op.14, Sz 62, BB 70, II, III, IV</i> (1916) <i>Two Elegies Op. 8b, Sz 41, BB 49</i> (1908-09)
<b>Very Advanced</b>	No Bartók works listed.	<i>Two Romanian Folk Dances Op. 8a, Sz 43, BB 56</i> (1910)	<i>Allegro barbaro Sz 49, BB 63</i> (1911) <i>Improvisations on Hungarian Peasant Songs Op. 20, Sz 74, BB 83</i> (1920) <i>Three Studies Op. 18, Sz 72, BB 81</i> (1918)

## Applications for teaching

Bartók's *Ten Easy Pieces* (1908), is a collection of short one to two-page intermediate pieces and includes examples from each of the three categories shown in Figure 4. The renowned Bartók scholar, Laszlo Somfai first observed that the set could be divided into two halves, with alternating folk (traditional and neo-folk) and original (contemporary) works, each culminating in a synthesis piece, at numbers 5 and 10 (Somfai, n.d., p. 6). The most accessible pieces are numbers 1, 3, 5, 6, 8, and 10. These are either based on folk music or have the spirit of folk music. Numbers 2, 4, 7, and 9 together with a 'Dedication' as an eleventh, are original compositions, and are characterized by unconventional melodic structures and dissonant harmonies. The logic underpinning the sequential progression of the pieces is shown in Figure 5.

At these two extremes are the traditional folk and contemporary pieces. 'Hungarian Folksong', No. 8 illustrates Bartók's arrangement of a folk tune and is typical of the pieces in his collection *For Children*. This piece is divided into two sections. The melody stated first in the treble in bars 1-18, and then restated in the bass in bars 20-37. A whole bar rest separates the two statements of the theme in bar 19. A cadence figure, follows a whole bar rest in bar 38, concluding the piece in bars 39-40.

The cadence figure punctuates melodic phrases in bars 5, 10, 16-17, 23, 28, and 34-36. There are three components in the piece: the melody, the cadence figure, and a 7-6 progression the pervades the accompaniment, highlighted in Figure 6. It would be best to approach this piece by selecting one of the components in the lesson and mastering it before moving on to one of the others.

In Figure 6, the three components discussed represented examples of repetition and contrast. Repetition and contrast can also be a means of approaching the more 'atonal' pieces in this set such as 'Painful Wrestling', No. 2. Figures 7 and 8 (Kasztelan Chapman, 2017, p. 6) illustrate ways in which repetition and contrast may be identified here. Using colour-coding, the marked-up score in Figure 7 shows that the piece is in ternary form and that the melodic line can be divided into three phrases. Each phrase is represented by a different colour.

The marked-up score in Figure 8 shows how the left-hand pattern in the accompaniment is based on a four-note ostinato pattern which, except for some very slight variations in bars 6, 9, 12, 13, and 14 remains essentially unchanged through the course of the piece. Though the pattern is transposed from the starting notes D to F, and G before returning to D. The pattern beginning on the notes C-B-flat-

**Figure 5 Béla Bartók *Ten Easy Pieces*, Classification of pieces**

Number	Title	Type	Category
Introduction	Dedication	Original	Contemporary
1.	Peasant's Song	Folk	Traditional folk
2.	Painful Wrestling	Original	Contemporary
3.	Slovak Peasant's Dance	Folk	Traditional folk
4.	Sostenuto	Original	Contemporary
5.	An Evening at the Village	Synthesis	Neo-folk
6.	Hungarian Folksong	Folk	Traditional folk
7.	Aurora	Original	Contemporary
8.	Hungarian Folksong	Folk	Traditional folk
9.	Finger Exercise	Original	Contemporary
10.	Bear Dance	Synthesis	Neo-folk

A-G-E forms a descending line in the last four bars. Despite its 'atonal' sound this piece can be taught with reference to familiar structures in music such as antecedent and consequent phrases, and ostinato accompaniment with reference to a larger three-part formal design. As with Bartók's treatment of the folksong in no. 8, this piece is best approached by selecting individual components to teach separately, such as the accompaniment, and the melodic phrases. In the lesson, coloured highlighter

pens could be used to box up and identify small-scale repetitions such as the individual phrases.

## Conclusion

Most of the teachers and students surveyed for this study, had formed opinions about Bartók's music based on their experiences with *Mikrokosmos* and were unaware of the reservoir of accessible material in the collections *For Children*, and other pedagogical material from this period, or that

Figure 6 Béla Bartók 'Hungarian Folksong', No 8, *Ten Easy Pieces*

The image displays a musical score for Béla Bartók's 'Hungarian Folksong', No 8, from the *Ten Easy Pieces* collection. The score is written for piano and consists of two systems of music. The first system, labeled 'Section 1 melody in treble', shows the initial melodic line in the treble clef and the accompaniment in the bass clef. The second system, labeled 'Section 2 melody in bass', shows the continuation of the melody in the bass clef and the accompaniment in the treble clef. Blue boxes highlight specific melodic phrases in both sections. The score includes various dynamics such as *ppp*, *pp*, *mp*, and *f*, as well as fingerings and articulation marks.

Figure 7 Béla Bartók 'Painful Wrestling', No 2, Ten Easy Pieces, melodic phrases

The figure displays a musical score for 'Painful Wrestling' by Béla Bartók, divided into sections A and B. The score is annotated with colored boxes identifying melodic phrases and their relationships.

**Section A:**

- Introduction:** The first measure of the piece.
- Phrase 1, antecedent:** A purple box highlighting the first phrase, starting with a *molto agitato* marking.
- Phrase 2, consequent:** An orange box highlighting the second phrase, which follows the antecedent.

**Section B:**

- Development of the antecedent:** A grey box indicating the section's purpose.
- Phrase 2, consequent:** An orange box highlighting a second instance of the consequent phrase.
- Phrase 3:** A green box highlighting a new phrase.
- Phrase 1, antecedent (extended):** A purple box highlighting an extended version of the first phrase.
- Phrase 2, consequent (compressed):** An orange box highlighting a compressed version of the second phrase, occurring under a *calando* marking.
- Conclusion:** A grey box at the end of the piece, marked *molto ritardando* and *espressivo*.

Section A is marked with a blue box labeled 'A', and Section B is marked with a blue box labeled 'B'. The score includes various performance instructions such as *pp*, *molto agitato*, *calando*, *molto ritardando*, and *espressivo*.

Figure 8 Béla Bartók 'Painful Wrestling'; No 2, *Ten Easy Pieces*, *ostinato*

4-note pattern **A**

Lento *pp* Left-hand pattern on D

Variant 1 Left-hand pattern on F

**B**

Variant 2 Left-hand pattern on G Variant 3

**A**

Variants 4 & 5 Variant 6 Left-hand pattern on D

**C** **B<sub>b</sub>** **G** **E** **D**

*ritando* *cresc.* *espressivo*

Bartók's piano pieces could be classified according to three categories or styles. Bartók's use of non-Western modes, irregular rhythms, non-conventional forms within a twentieth century musical language require a new conceptual approach. The pedagogical piano works are miniature gems, each governed by its own internal logic. The lack of stylistic homogeneity in the piano works written between 1908 and 1920, means that each piece is unique – a 'one off'. By identifying which category a work belongs to may assist teachers to select appropriate Bartók repertoire for their students. The pieces based on folk music are likely to provide a more accessible entry point to Bartók's music than the contemporary abstract works. Students can be gradually introduced to the more abstract contemporary works with reference to familiar patterns and structures in found in tonal music. This can be accomplished by incorporating analysis to identify repetition and contrast within the music lessons during the early stages of learning a work.

Some unexpected findings to emerge from the research were that some non-Westerners did not find Bartók difficult. This connection would be worth further investigation, however, is beyond the scope of the current study. Bartók maybe the Jekyll and Hyde of Hungarian music because he is misunderstood. Bartók's friend and colleague, Zoltán Kodály, recognized that Bartók's more challenging music could only be understood by the 'initiated', and he discretely pointed us to the path that we need to follow in order to appreciate it in all of its details – a musical education (Fosler-Lussier, 2007). While it may be more comfortable to remain in the shallows with the gentle waves of tonality lapping around our ankles, we risk limiting our students' potential for developing their intellectual curiosity.

## References

- Alsop, M. (2007). Breaking Through to Bartók [Radio Broadcast] National Public Radio, September 14, 2007, 11:30 AM ET Retrieved from <http://www.npr.org/templates/story/story.php?storyId=14418057>
- Associated Board of the Royal Schools of Music. (2016). *Repertoire lists 2009-2018: Piano* [PDF file]. Retrieved from [https://www.abrsm.org/fileadmin/user\\_upload/diplomas/performance/performanceInstruments.pdf](https://www.abrsm.org/fileadmin/user_upload/diplomas/performance/performanceInstruments.pdf)
- Associated Board of the Royal Schools of Music. *Music theory syllabus 2018* [PDF file]. Retrieved from [https://gb.abrsm.org/fileadmin/user\\_upload/PDFs/Theory\\_Syll\\_Master\\_2018.pdf](https://gb.abrsm.org/fileadmin/user_upload/PDFs/Theory_Syll_Master_2018.pdf)
- Australian Music Examinations Board. (2008). *Piano series 16: Recordings and handbooks*. Melbourne: All Music Publishing.
- Australian Music Examinations Board. (2014). *Piano series 17: Recordings and handbooks*. Melbourne: All Music Publishing.
- Australian Music Examinations Board. (2017). *Australian Music Examinations Board 2018 manual of syllabuses*. Melbourne: AMEB.
- Antokoletz, E. (1984). *The music of Béla Bartók: A study of tonality and progression in twentieth-century music*. Berkeley & Los Angeles: University of California Press.
- Antokoletz, E. (1988). *Béla Bartók: A guide to research*. New York & London: Garland Publishing.
- Antokoletz, E. (1993). 'At last something truly new': Bagatelles. In M. Gillies (Ed.), *The Bartók companion* (pp. 110-123). London: Faber & Faber.
- Antokoletz, E. (1995). Development of interval cycles in Bartók's Three Studies, Op. 18. *Studia Musicologica*, 36(3/4), 249-261. doi:10.2307/902213
- Antokoletz, E. (2011). *Béla Bartók: A guide to research*. (3rd ed.) New York: Routledge.
- Australia and New Zealand Cultural Arts. (2018a). *Australia and New Zealand Cultural Arts examination syllabus: Pianoforte 2018-2020* [PDF file]. Retrieved from [http://www.anzca.com.au/anzca\\_syllabuses](http://www.anzca.com.au/anzca_syllabuses)
- Australia and New Zealand Cultural Arts. (2018b). *Examination syllabus: Theory of music 2018-2020*. [PDF file]. Retrieved from <http://www.anzca.com.au/Syllabus%20PDFs/ANZCA%20Piano%20Syllabus%202018-20.pdf>
- Barratt, T., Carrasco, S., Gould, S., McLeod, M., Oliver, N., Tanner, M., & Williams, A. (2016). *Teaching notes on piano exam pieces 2017 & 2018: Grades 1-8*. Portland Place, London: ABRSM.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Brown, J. (2007). *Bartók and the grotesque: Studies in modernity, the body and contradiction in music*. Royal Musical Association Monographs 16. Aldershot: Ashgate Publishing.

- Forrest, D. (1996). "The educational theory of Dimitri Kabalevsky in relation to his piano music for children". Unpublished doctoral dissertation. The University of Melbourne.
- Forte, A. (1960). Bartók's serial composition. *Brit* 46(2), 233-245.
- Fosler-Lussier, D. (2007). *Music divided: Bartók's legacy in cold war culture*. Berkeley: University of California Press.
- Foucault, M. (1972). *The archaeology of knowledge*. London: Tavistock.
- Gillies, M. (1990). *Bartók remembered*. London: Faber & Faber.
- Gillies, M. (1993). Bartók and his music in the 1990s. In M. Gillies (Ed.), *The Bartók companion* (pp. 3-17). London: Faber & Faber.
- Gillies, M. (2010). Infernal Bartók. Retrieved from <https://www.philharmonia.co.uk/bartok>
- Hamilton, R. (2005). *Bartók Selected Piano Works II PDF: Analytical notes on selected piano works of Béla Bartók II*. Electronic PDF.
- Hamilton, R. (2006). *Mikrokosmos Selections I PDF: Analytical notes on selections from Béla Bartók's Mikrokosmos for piano*. Electronic PDF.
- Hamilton, R. (2015a). *Bartók Selected Piano Works III PDF: Analytical notes on selected piano works of Béla Bartók III*. Electronic PDF.
- Hamilton, R. (2015b). *Mikrokosmos Selections II PDF: Analytical notes on selections from Béla Bartók Mikrokosmos Vol. 3*. Electronic PDF.
- Hamilton, R. (2015c). *Mikrokosmos Selections IV PDF: Analytical notes on selections from Béla Bartók Mikrokosmos Vol. 6*. Electronic PDF.
- Hamilton, R. (2016). *Bartók Selected Piano Works I PDF: Analytical Notes on Selected Piano Works of Béla Bartók I*. Electronic PDF.
- Hamilton, R. (2017). *Mikrokosmos Selections III PDF: Analytical notes on selections from Béla Bartók Mikrokosmos Vol. 4 & 5*. Electronic PDF.
- Horan, A. (1957). "The Mikrokosmos of Béla Bartók; description and analysis of the problems encountered in form, rhythm, harmony, melody and expressive elements. its use in teaching". Unpublished doctoral dissertation. Boston University.
- Howat, R. (1977). Debussy, Ravel and Bartók: Towards some new concepts of form. *Music and Letters* 58(3), 285-293.
- Jacobson, J. (2006). *Professional piano teaching: A comprehensive piano pedagogy textbook for teaching elementary-level students*. Los Angeles: Alfred.
- Kasztelan Chapman, H. (2017). Approaches to Teaching 'Atonal' Music. *Australasian Piano Pedagogy Conference Proceedings: Keys to a Changing World: Unlocking the Past, Present and Future*, Adelaide 10-14 July 2017, [Online] pp. 1-11.
- Lendvai, E. (1971). *Béla Bartók: An analysis of his music*. London: Kahn & Averill.
- Lendvai, E. (1983). *The workshop of Bartók and Kodály*. Budapest: Editio Musica.
- Lidiard, P. & Fitch, G. (2017). *Teaching Notes: Initial – Grade 8*. Amersham, Bucks: TCL.
- Milne, E. (2010, April 27). Mikrokosmos Heresy. Retrieved from: <https://elissamilne.wordpress.com/2010/04/27/mikrokosmos-heresy/>
- Nissman, B. (2002). *Bartók and the Piano: A performer's view*. Lanham, Maryland: Scarecrow Press.
- Oestreich, J. R. (1990, September 26). Review/Piano: György Sandor's Bartók played for a few hundred. *The New York Times*. Retrieved from <http://www.nytimes.com/1990/09/26/arts/review-piano-gyorgy-sandor-s-bartok-played-for-a-few-hundred.html>
- Salzer, F. (1962). *Structural hearing: Tonal coherence in music*. New York: Dover.
- Somfai, L. (n.d.). Record sleeve notes. Complete Edition, Bartók Béla, *Ten Easy Pieces, Three Hungarian Folk Songs from the Csik District, Fourteen Bagatelles* Op. 6, Kornél Zempléni Piano, trans., R Prockl, Hungaroton, LPX 1299, Kossuth Nyomda, Budapest.
- Stevens, H. (1964, rev. 1993). *The Life and Music of Béla Bartók* (M. Gillies, Ed.). Oxford: Clarendon Press.
- Suchoff, B. (1993). Fusion of National Styles: Piano Literature, 1908-11. In M. Gillies (Ed.), *The Bartók Companion* (pp. 124-145). London: Faber and Faber.
- Suchoff, B. (2004). *Bartók's Mikrokosmos: Genesis, pedagogy, and style*. Lanham, Maryland: Scarecrow Press.
- Trinity College London. (2008). *Trinity College London diplomas in music: Performance and teaching 2009-2018*. Trinity College London online edition, 9 June 2017.
- Trinity College London. (2017a). *Trinity College London piano syllabus: Qualification specifications for graded exams 2018-2020*. Trinity College London online edition.
- Trinity College London. (2017b). *Trinity College London theory of music syllabus: Written exams grades 1-8 from 2009*. Retrieved from <https://www.trinitycollege.com/site/?id=1058>
- Travis, R. (1970). Tonal coherence in the first movement of Bartók's Fourth String Quartet. In W. J. Mitchell & F. Salzer (Eds.), *The Music Forum 2* (pp. 298-371). New York: Columbia University Press.
- Yeomans, D. (1988). *Bartók for Piano*. Bloomington: Indiana University Press.

## Appendix

### Check-box questions in Questionnaire One (APPC 2017)

1. Which response best describes you? (You may select more than one response)
2. If you responded "Other" to Question 1, please provide more information
3. What is your Gender?
4. What is your age range?
5. Which words best describe your musical preferences? (You may select more than one response)
6. If you responded "Other" to Question 5, please provide more information
7. Please list a few of your favourite composers
8. Which response best describes your perception of Bartók's music?
9. If you responded "Other" to Question 8, please elaborate
10. Which responses best describe the context for your past engagement with Bartók's music? (You may select more than one option)
11. Which response best describes your experience with Bartók's music?
12. If you played Bartók's music as a student, what level was the work(s)? (You may select more than one option)
13. If you can recall the works you played write them here

### Additional Check-box questions in Questionnaire Two (VMTA)

14. Is your first instrument piano?
15. If you are not a pianist, please write your specialist area and instrument(s) that you teach in the space below

### Open-ended questions in Questionnaire One (APPC 2017) and Questionnaire Two (VMTA)

1. Describe your feelings, impressions and responses to hearing Bartók's music for the first time
2. What are your thoughts about Bartók's music now?
3. Describe your experiences of learning, performing and/or teaching Bartók's music
4. Do you have an approach to learning and/or teaching the works of Bartók? If yes, please elaborate
5. Do you have any further comments you would like to add?

### Focus Group Questions

1. Background Question. General. "Can we go around the room and each person tell us a bit about your background?"
2. What are your experiences in learning/performing/teaching the music of Bartók?
3. Do you have an approach to learning/performing/teaching the music of Bartók? If so, please elaborate.
4. In what context have you/do you learn(ed)/perform(ed)/taught/teach the music of Bartók?
5. Any further thoughts or comments?

## Interview Questions

1. Can you tell me a little about your background?
2. What are your experiences in learning/performing/teaching the music of Bartók?
3. Do you have an approach to learning/performing/teaching the music of Bartók? If so, please elaborate. What worked well? Was there anything you might do differently?
4. Were there any barriers that you encountered in approaching the music of Bartók?
5. How did you overcome these barriers?
6. In what context have you/do you learn(ed)/perform(ed)/taught/teach the music of Bartók?
7. As a learner/performer/teacher, have you listened to or do you listen to other pianist's recordings of the works of Bartók? If so, how has this influenced or affected your approach to learning/performing/teaching his music?
8. Any further thoughts or comments?

**Helen Kasztelan Chapman** is a senior AMEB piano examiner with more than 25 years' experience in examining and adjudicating in piano eisteddfods. She is currently enrolled as a PhD candidate at Charles Darwin University, investigating new approaches to analysing the works of Béla Bartók. Before the birth of her son, she was a member of staff, VCA School of Music for 15 years. Here she devised and implemented courses in Keyboard Harmony, Harmonic Resources, Music Analysis and History; supervised Honours and Masters theses and conducted Aural classes. She has also lectured and tutored in Analysis and Harmony at the University of Melbourne.