9 Trevor Wishart's *Children's Stories II* from *Encounters in the Republic of Heaven*: an analysis for children of a sample-based composition

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General introduction

This analysis differs from the others in this Part IV due to the fact that it addresses a specific user group. The answers to the four-part question introduced in Part I are:

- For which users? For teachers, particularly those instructing children aged 11–14 (Key Stage 3 in the UK) utilising a language that is appropriate for their students.
- For which works/genres? The short 'portrait' Children's Stories II from Act 2 of Trevor Wishart's 2010 composition, Encounters in the Republic of Heaven.
- With what intentions and with which tools? Using EAnalysis software to find appropriate representations for the meaningful (more comprehensible word-based) and musical (more abstract sound-based) aspects of the movement with the intention of making the work both accessible and comprehensible to young listeners.

The book's analysis template will be integrated into the discussion wherever relevant as well as those elements proposed in Part I specific to *sample-based music*. Given the users' group for which this is intended, the tone of the analysis has been adapted. For example, anecdotes not directly related to the analysis, yet directly related to the piece's sonic universe, are included to offer the teachers' students a context that is familiar to them already.

Introduction to the analysis

The intention of this analysis is to introduce a piece of music made with sounds, in this case the speaking voice, as opposed to musical notes. This type of music, which you may have heard before but didn't know what to call it, is known as electroacoustic or sound-based music. Sound-based music can be quite innovative and it often does not have terribly much in common with other types of music; therefore, the intention of this analysis

is to help you discover what the piece involves, what the composer's goals were as well as how to listen to and, ideally, appreciate a piece of music like this one. A movement from a longer work has been chosen due to its specific content and its relatively short duration. Before we talk about and hear the piece, let's introduce sound-based music and the chosen composer briefly to provide you with the context of *Children's Stories II*.

Making music with sounds

In music history some unusual sounds have been used such as cuckoo clocks in symphonies as well as typewriters and even airplane propellers. These are most often used as 'new' instruments to make unusual melodies and percussive rhythms. In the last century a novel type of music was born that allows a musician to use any sound. There are two main types of sounds that can be used in this music: those that already exist, we normally call them samples, that can be recorded and later modified in many ways, such as speeding them up, playing them backwards and much more; and those that are generated electronically. In the latter we speak of sound generation or synthesis. Today these two approaches are often combined; in fact, this type of music is made virtually everywhere as current digital processing tools can transform sound quite radically. In our case, we are only dealing with recordings of the human voice, so we will not pursue the subject of sound synthesis any further.

Making music with the spoken voice

As radical as the idea of making music with any sounds may appear, making music just with sounds of the spoken voice may seem equally odd. In fact, since the early twentieth century fascinating creative works have been made with the speaking voice and the voice producing utterances beyond speech. This type of work has been known by a number of names including phonetic poetry, text-sound poetry – think of poetry to be heard, but not necessarily read, and when the intention is clearly music, text-sound composition.

Many of you will be familiar with rap, but where might this fit in? Rap is performed normally with traditional instruments, sometimes with turntables. The beat and, when used, the underlying melody of the voice are combined with the instruments. The speaking voice may be the main part

in the music, but it is generally combined with traditional musical aspects such as normal notes, harmony, rhythm, etc.

There are also notated pieces of music made solely of the speaking voice. When I was a child, I performed a choral composition called *The Geographical Fugue* by a composer named Ernst Toch, which was first performed in 1930. Four parts were written out mainly with names of places and rivers and the structure of the piece was like a fugue, a form that evolved in the Baroque era.

There is something very interesting to discover about the voice that you might not know. In classes I have taught I have asked students: 'Do you think the speaking voice is chromatic, speaking mainly on pitches with intervals similar to those between the keys on the piano?' Most people have no idea what the answer is. When listening to someone, it's hard to tell. However, if someone is speaking a language you don't know, it's easier. I can record my voice and play it backwards to take out the language to which most people's attention is drawn. I then add reverberation to extend the sounds (think of any sound made in a large space like a church; it lasts longer as the space allows it to 'sound out'). When people experience the voice under these conditions, it is easy to hear that the speaking voice is indeed more or less chromatic. This fact is important, as we shall discover when we investigate our piece.

Listening to various forms of speaking in music led us, like Wishart, to experiment musically with the speaking voice. Our experiments would end up taking us well beyond the traditional musical aspects referred to above. Using the speaking voice and then manipulating it using tools for sound processing allows a musician to treat the information in a text, in a word or syllable and the individual sound in a multiplicity of ways. In fact the sound of the voice can be manipulated beyond the comprehension of its contents. Therefore there is plenty to choose from when making a piece in this manner.

Who is Trevor Wishart?

The composer chosen for this analysis is the British musician Trevor Wishart. Almost all of his pieces are sound based (as opposed to note based), using any sound as potential material in his music. Still, he has a huge interest in the voice, often saying that, after the computer, the voice is the instrument that can produce the most types of sound. Therefore, some of his works have involved live vocalists, too. However, the type of composition we shall be discussing is not one performed live; instead, it has been pre-recorded and is played back from a sound file.

Wishart is well known internationally as a composer, writer and software developer. He has also won many awards for his work, including the most important prize in his field, the Ars Electronica prize. As said, he is fascinated by the human voice and can produce hundreds of different types of vocal utterances (see Wishart 1985). A few of these sounds are quite normal and many are very odd indeed. His belief is that these sounds can all be used musically. Sonic art is his name for this type of music. As it is relatively young, compared with many traditional forms of music, many names for more or less the same thing are in circulation! Another thing he is very well known for is what is called sound transformations. Imagine the sound of a human voice turning into the sound of bees 'naturally'. It is like magic. We sometimes call this morphing. Sound transformations are similar to visual ones you will have seen on the television, at the movies or on computer games. We won't be returning to this as sounds range from the comprehensible spoken word to more abstract ones, that is, without meaning related to language, in our piece. What is important here is that Wishart likes to treat his sounds as a sculptor treats clay. It is about moulding a sound until it sounds just the way he wants, one of the most exciting things one can discover when making sound-based music.

Another thing that Wishart is known for, and that is one of the reasons why he has been chosen here, is that he is very interested in introducing this type of music to people who don't know about it, in particular young people. He has worked in schools often throughout his career and, in the 1970s, put together two books called *Sounds Fun* (1977, 1990) that are filled with interesting sound-based 'musical games' for young people. In fact, his work inspired me to write a book introducing this type of music to younger people called *Making Music with Sounds* (Landy 2012). If you are interested in this type of work, you can look at the book and go to its educational website (ears2.dmu.ac.uk) known by its abbreviation EARS 2 (ElectroAcoustic Resource Site). It is with Wishart's educational interest in mind as well as his desire that as many people enjoy this type of music as possible that it comes as no surprise that two of the movements of his concert-length piece involve children's voices.

About the piece and how the movement fits within it

The composer has always identified himself as a composer from the north of England. He claims in his CD text and in the work's description in his book *Sound Composition* that he originally wanted to make a work

focusing on the sounds of Yorkshire, where he lives. However, as fortune would have it, he was awarded a three-year Artist in Residence grant at Durham University, further north in England, and used this opportunity to celebrate the unique dialect that can be found in the country's northeast corner.

Wishart has written the following about the work:

Encounters is an exploration of the music inherent in everyday speech. ... [T]he aim of this project was to capture the musical features of speech at the level of the spoken phrase, its melody and rhythm, and the sonority of individual speaking voices, that indefinable yet recognisable something that enables us to distinguish one person from another. I especially wanted to capture both the diversity of human expression, and the sense of an entire community of speakers, a poetic snapshot of the diversity of human life (Wishart 2012: 131)

Elsewhere Wishart also mentions combining voices or a single voice's sounds to create harmonies. Therefore, the musical aspects we know from instrumental music, melody, rhythm, harmony and spectral sonic qualities (such as the rasp of a bowed violin or the plucking sound of a guitar) are also being investigated in this speech-based piece. He uses surround sound in many of the piece's movements (but not ours) and offered a lovely thought regarding placing the voices around a performance space:

As the piece would attempt to encapsulate this community of speech, I decided to work in 8-channel sound-surround, so that the audience would be embraced within this community. (Wishart 2012: 132)¹

His aim was to capture people talking naturally as they would to each other. Therefore, he did not ask people to read any texts he had prepared beforehand; instead, he wanted people to act as normally as possible, telling stories. He said to me that sometimes children were a bit shy, but by putting two or three together and letting them speak amongst themselves, it was easy to record very special stories.

As you can see from his remarks, he was looking for interesting stories, different vocal sounds and musical aspects of the speaking voice. After making a large number of recordings, he classified them, cleaned them (taking away any sounds beyond the speaker and any unwanted sounds, such as someone clearing his or her throat), and tried to structure the sounds into themes and sound types on long lists. This was a huge undertaking as he had recorded up to two hours of each person talking!

¹ In some sections, not the one we are going to look into, he gets some sounds to rotate around the room.

With the children, he sometimes found a sentence and had them repeat it to different rhythms so that he could use the rhythms musically. In our movement, the rhythms are already in the sentences as we can hear.

It is important to know that Wishart asked all of the people he recorded whether they wouldn't mind his using their voices to make a piece about the north-east of England. He told me he even played back the relevant parts of the piece to those who had their voices recorded to see whether they were happy with the result and didn't mind the recording being used in his composition. He never intended to make fun of any person or the accent, but instead wanted to celebrate the dialect from the region and the diversity of voices and people he had found. It was his goal that these voices and their stories play a central role throughout this piece.

Many works of this type are of a particular length; most are longer than many pop songs, but hardly ever longer than a half hour. This one, however, is similar to an opera as it is in four acts, each act consisting of several movements, in fact 25 in all. It lasts well over one hour. There are different themes given to the movements. The two *Children's Stories* movements belong to what he calls portraits. The first one in Act 1 consists mainly of boys' voices; in Act 2, ours consists mainly of girl's voices (except the voice in the hamster story that we shall be looking at).

To summarise what has been introduced, the composer has recorded many voices telling stories or in a normal setting (e.g. someone at a marketplace) and chosen only certain extracts – sentences, phrases, words and syllables – as samples and has made music based on these samples. How the music has been put together and what you can listen for in such a speech sample-based piece is the subject of our next section.

Children's Stories II

This portrait that lasts about $2\frac{1}{2}$ minutes is not a single story, but consists of several, even though a number of sounds from some of these, like the first one, reappear at the end. It consists of a number of children, mainly girls, telling stories. The composer then takes some of the musical characteristics of the words and emphasises them as the texts are modified and sometimes combined.

There are two important things for us to think about when learning about this piece. The first thing is that as sounds move from their original appearance to their modified form, our listening changes. When we are clearly following words, we are listening to what might be called the

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meaningful side of the content.² As the words are modified and become more abstract, we tend to focus on their sonic qualities and thus we are more aware of the *musical* side of the content. The second thing is that some of the materials appear again and again, but change slightly every time they appear. This is traditionally known as *theme and variations*.

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> Normally that means listening to a passage of music that changes every time it recurs. Here it means that a text is presented or treated differently every time it recurs; so it is the same approach, but the specific means of composition and what it is combined with are quite different.

> The composer cleverly starts the movement introducing something with which all of you will be acquainted, namely the nursery rhyme *Humpty Dumpty*. The child speaking it not only has a lovely accent, she also charmingly swallows some of her sounds. And, at the end, it appears as if she forgets the end of the nursery rhyme when she says, 'And you know I don'.' Wishart apparently liked this sentence because he found other ones that are similar, such as: 'Do you know what it was?' and 'And do you know what I done?' So we already have two things that are going to reappear in this piece: the two words, Humpty and Dumpty and sentences including 'you know'. As innovative as this music is, he is already providing us with two things to hold on to as we listen to the work. In the case of *Humpty Dumpty* we do get the other lines about putting him together again, so there is another link.

Regularly these two words are chopped up and played back to us again and again, gradually modified until they become just a flow of sound. Because we have been able to follow this change from real to abstract, we are therefore aware that the sounds in the middle and at the end are all to do with Humpty Dumpty. This is what was meant when we spoke of moulding sounds and it has a magical quality to it as well.

Let's take a look at this when it first happens in the piece (*Sound* example 1 from EAnalysis file: $0-21^{\circ}$).³ You will probably have noticed that paying attention to the melody or rhythm whilst the girl was speaking is not the first thing that came to mind, but once the words Humpty and Dumpty start appearing on their own or even part of the words, things start getting more musical, in the traditional sense, and thus we can hear pitches (like in a tune) and a funny rhythmical combination more clearly.

² If the sounds are, for example, from a city or a forest, we speak of the *contextual* side of the content.

³ The sound examples and EAnalysis movies with a key to the symbols used are to be found on the website accompanying this book.

Finally out of this comes a sound as if shot into the mixture that then fades away. Although it is not entirely apparent that this flowing sound is the same voice, it is clear that its sonic quality is the same and so we move from real to cut up to unrecognisable in just 21 seconds. Wishart is gradually transforming the sound and then uses a treatment that sustains it to create that sound flow.

In the analysis score that is provided, you will notice that the text is in a blue box. There is more information provided, too. The capital **A** in the yellow box represents the first story (A) and the little **a** represents modifications made to words and sounds from story A. The blue arrows represent recurring sounds of either word Humpty or Dumpty and, when there is a dotted outline around the arrow, it means there are multiple sounds in rapid succession. The descending blue line represents the flowing sound taken from the voice and how it gets quieter. The three letters in the green box, **R+M+S** represent the fact that we've heard rhythm, melody and spectral (in the sense of the sonic quality) treatment of the sounds after the initial story is heard: rhythm particularly once the words have been chopped out; melody because the girl's voice is quite melodic already and the fact that there are only a few pitches in the chopped-up sounds; and spectral because of the sound qualities that evolve once the sounds are fragmented and, in particular, the sound flow commences at the end.

The second half of the nursery rhyme is identified as A' because it is part of the same story, but different from A. Similarly when you read small letters with one or more inverted commas after them, this means that the modifications have to do with that story and are the second, third (and so on) appearance of those sounds. The fact that it is another voice that replies with 'Do you know what it was?' has been represented in a different letter colour in the blue box. In this case, the letter H has been added to the R+M+S as the sounds are also treated harmonically in what is indicated as a', especially once the sound flow gets louder and combines with the second group of fragmented Humpty Dumpty's. Again, here we have the two types of blue arrows and the blue line that, this time, rises before it falls again. This is a variation of what we heard in a. The blue line also continues throughout the entire B story and is even on its own for a while when the story ends. The blue arrows appear again and even continue throughout C and the beginning of D. In this way we have something we recognise from our first story whilst others are introduced. The directions of the blue arrows have to do with how loud they are just like the blue lines.

The **B** hamster story, the one with the only boy's voice, is the longest in terms of its text. It is not modified when we hear it and a separate girl's

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voice ends it by answering 'Yeah' after he suggests that his hamsters 'couldn't have been hungry'. But that boy's voice does reappear in **D** as we shall discover shortly. Similarly the **C** wishing star story is accompanied by the Humpty Dumpty sounds. Take note, the **B** and **C** voices will return and will be varied later in the piece so that we are not always encountering new materials and voices. This **B** section does not have much of a melody between the original text and what follows, but once the repeated 'Yeah' sound appears combined with the chopped-up and flowing Humpty Dumpty sounds, it becomes rhythmical in terms of the discrete sounds in time, spectral in terms of sound qualities as well as harmonic in terms of the pitch combinations which evolve.

Section D is the most dense section aurally in the sense that there are voices to the left and different voices to the right and this short passage becomes difficult to follow in terms of meaning at times. Recognisable words flow into sounds due to information overload. Still, if you listen carefully, you can hear the reappearance of the hamster story voice. So it is primarily rhythmical, not in the sense of wanting to tap your foot to the beat - although if you listen carefully, there is a beat as well as an everalternating melody - but instead in terms of creating a pattern, be it a more complex one than what we've heard thus far. It becomes even more melodic when the composer adds some reverberation to sustain the sounds so that we can perceive pitch better than we did at the beginning. Towards the end of D, there is a canon just like 'Row your Boat' using familiar material from B which evolves into a fragmented sound that seems to have been derived from it that fades out quickly and will reappear once again at the very end of the piece. Let's listen to the piece between B and D to follow this entire sequence. (Sound example 2 from EAnalysis file: 21"-1'25").

The following section, **E** starts with that familiar sentence, 'And do you know wha' I don'?' and continues with the same voice as 'wishing star' but with an entirely different story about getting 'soakin' wet'. This is followed by the reappearance of the 'Yeah' from **B** processed and repeated rapidly and 'Humpty' from **A** treated similarly as before, leading to the flowing sound that is related to it that carries on to the next part of the story. In this part, rhythm does not play much of a role, but the other three factors do. This sequence follows into what might be a related sequence as the same voice continues with a story, **E'**, that took place in a pushchair. This little story leads to the girl enthusiastically ending her story with a loud 'I went out' which is manipulated and rapidly repeated as well as the 'Yeah!' that is treated the same as it was at the end of the last story. Harmony doesn't really feature here although there is an interval between the two repeated

sounds; rhythm and melody appear as before and the spectral quality becomes a focus once the repeated sounds have commenced. One can identify the new and existent materials by listening to this combined E and E' sequence (*Sound example 3 from EAnalysis file: 1'25"-1'55"*).

As we approach the end, things move on to a climax in which much of what we have already been introduced to reappears. I have called this section F-Mix because it contains so many things. We start off by clearly hearing the words 'My cousin', which will continue to be present in a manipulated form until shortly before the end of the piece. Here, again, the manipulation makes the original sound become increasingly abstract; it also becomes fragmented towards the end, producing a sound quality as if it were plucked. Other words and phrases from A to E appear, but, similar to D, it is not the goal that these words and phrases be clearly understood, but, instead, only partially perceived so that the fine line between meaning related to the text and musical listening seems to get crossed now and then. Along with the flowing 'my cousin' sound, the one associated with Humpty Dumpty reappears for the last time. Where it launched after the choppedup Humpty Dumpty words and syllables previously, it appears first here and then the fragments follow in two bunches. In this way it is quite symmetric with the beginning of the movement. All four factors - melody, rhythm, harmony and spectral qualities - can easily be identified here and it is not surprising that they're all combined for this final mix.

The very end of this final section consists of the final seconds of the plucked sound and reappearances of three texts we've encountered several times: first 'And do you know what I done' appearing in canon, thus featuring rhythm and melody, 'So he couldn't have been hungry' from the hamster story and that often recurring 'Yeah!' again manipulated and rapidly repeated until it has been faded out. The fragmented sound that we heard at the end of **C** related to the hamsters not being hungry is the final sound in this movement and appears like a cadence in traditional music. Let's listen to this conclusion before making some general remarks and listening to the entire piece. (*Sound example 4 from EAnalysis file: 1'55"-2'34"*).

I sometimes wonder whether Humpty Dumpty is being broken into pieces in many ways throughout the piece and, perhaps, with everything coming together at the end, he might be put together again. Or, perhaps it's the opposite: so many things become fragmented and mixed together (mixed up) at the end, maybe that's when Humpty Dumpty really does fall to pieces. Who knows?

The nice thing about music is that it does not need to be about something specific and is open to interpretation. This means that not only

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the composer, but also the listener, can use his or her imagination to think about what is going on and make up the music's story. Consider which things in your life you might connect anything in the piece with. You might also explore which emotional responses are triggered and share and compare these thoughts with your friends.

For anyone who understands English, you get a chance to mix the meaning of the words with the sounds of the music. Everyone loves the sounds of children telling stories and, as the composer says, you get a real taste of the accents of that part of England to enjoy. And then there are the various remarkable manipulated sounds as well!

To conclude

To return to where we started, this discussion is about a piece of music made out of spoken word sounds. Many of you will have thought at the beginning, 'Can you really make music from any sounds? Can you really make music from speech?' It is clear that Children's Stories II doesn't sound like pop music, classical or folk music. It sounds like something new and different. But wait. We could have looked at the pitches in greater detail or even made a score of some of this; or the rhythms; or the harmonies; or even those spectral sonic qualities. In other movements of this work, Wishart does make sound-based music with clear harmonies, rhythms and pitches, some that those with popular or classical tastes will recognise. The fun challenge with this music is that we can use both traditional techniques and new ones, too. There are infinite choices, especially with those magical means of moulding sounds and combining them. Too many choices may be confusing, but if you know what kinds of sounds you like or like to make and the types of manipulation that work for you, it isn't that difficult at all! The limitations are determined according to your imagination.

Let's now look one last time at some of the things that we discovered here. There are a number of stories told by a few main voices. All the stories reappear in one form or another after they have been introduced. So we have an unusual form of theme and variations with several things to hold on to. We can follow the voices and how they appear and reappear in the stories. We can also hear some words and phrases and their manipulated versions that evolve throughout the movement. Note that the main sounds that are manipulated all reappear at one point. The flowing sounds tend to grow and fade away. The words, such as Humpty and Dumpty that

come back again and again, tend to reappear in the same ways as their original appearance so that you never get lost.

Although the stories evolve from **A** to **F**, there are many things that appear and reappear so that the listener is not constantly encountering something new. We are guided through one story as if it were made of many little mini-stories evolving at the same time. And then there are all of those musical qualities to take in as well. This keeps our ears and our minds very busy and it takes us from familiar stories to funny stories to gory ones to ridiculous ones. It may be quite a bit to take in but we don't need to listen to this piece only once. Listen again and again and you will discover more each time as I have whilst preparing this for you. In any case, listen to the entire movement now and discuss what you hear with someone else listening to it with you. And, above all, have fun with it (Sound example 5 from EAnalysis file: the entire piece).

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