Listening Art
Making sonic artworks that critique listening
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Abstract

Sonic artists and listeners to sonic artworks tend to take for granted that *how* a listener listens to a sonic artwork affects *what* that listener perceives that sonic artwork to be, through the listener’s inclusion, exclusion, and interpretation of the sonic events that constitute a given artwork. This tendency leaves the act of perception un-theorised in the production of sonic artworks, and unquestioned in their reception by listeners.

This project seeks to address this problem by making sonic artworks that take criticality of listening as their primary focus, on the part of artists and listeners. Its aim is to explore structuring sonic artworks around critical discourses on listening, and for those artworks to foster critical reflection on listening by listeners, hinging on the question: "*how can sonic artworks be made that form critiques of listening?*"

Based on an integration of schema theory and immanent critique, I devise and apply a rationale for making sonic artworks structured as discourses on listening. I complement this with an original adaptation of the Heuristic Research method, which I use to determine whether the artworks made for the project foster critical reflection on listening in audience experience, through the collection and appraisal of a group of listener’s descriptions of their experiences of the works.
Declaration

This is to certify that:

I. The thesis comprises only my original work towards the PhD except where indicated,

II. Due acknowledgement has been made in the text to all other material used,

III. The thesis is fewer than 50,000 words in length, exclusive of tables, maps, bibliographies, and appendices as approved by the Research Higher Degrees Committee.
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# Table of contents

Abstract ........................................................................................................................................................ iii

Declaration ................................................................................................................................................ iv

Acknowledgements ........................................................................................................................................ v

Table of contents .......................................................................................................................................... vii

Tables and Figures ......................................................................................................................................... ix

Introduction: How can an artist make sonic artworks that critique listening? ........................................... 1
  Personal context .......................................................................................................................................... 2
  Problem .................................................................................................................................................... 4
  Aim and scope .......................................................................................................................................... 4
  Research question .................................................................................................................................... 4
  Thesis overview ........................................................................................................................................ 5
  Significance ............................................................................................................................................... 6

Chapter 1: Literature review: How has listening been critiqued in the past? ............................................ 9
  Psychoacoustics and auditory neuroscience ............................................................................................ 10
  Listening studies ..................................................................................................................................... 13
  Listening and philosophy ....................................................................................................................... 15
  Listening and culture ............................................................................................................................... 21
  Listening and sonic art ............................................................................................................................. 29
  Summation ............................................................................................................................................... 50

Chapter 2: Methodology: How does an artist justify a sonic artwork as a critique of listening? ............... 57
  Art of value ............................................................................................................................................... 58
  Rationale for structuring sonic artworks as critiques of listening ........................................................ 60
  Applying the rationale to methods of art production ............................................................................. 64
  Knowledge of value ................................................................................................................................ 67
Research methods ...........................................................................................................70
Method for determining whether sonic artworks induce critical engagement with
listening ..........................................................................................................................72
Data collection ...............................................................................................................78
Data evaluation ..............................................................................................................84
Summation ......................................................................................................................87

Chapter 3: Data evaluation: What critiques of listening do these artworks
intend to form, and what is the experience of listening to artworks that
intend to critique listening? ......................................................................................89
Notes on the showing process ..................................................................................90
Notes on responses ......................................................................................................92
Critical engagement with listening across the showing process .........................93
Works .........................................................................................................................99
I’m here to listen .........................................................................................................102
Sound, proof ...............................................................................................................116
Over hear .....................................................................................................................127
Memory walk .............................................................................................................142
Summation ..................................................................................................................157

Conclusion: Can sonic artworks critique listening? .............................................163
Aim and scope .............................................................................................................163
Overview: findings, conclusions, implications .......................................................163
Unexpected findings, meaning, meaningfulness ......................................................167
End ...............................................................................................................................168

Bibliography ..............................................................................................................171

Appendix 1: Plain language statement .................................................................181
Appendix 2: Participant consent form .................................................................183
Tables and Figures

Table 1: Chronology of innovations in Western art music .......................................................... 31
Table 2: Concepts in participant definitions of listening (verified) ........................................ 95
Table 3: Initial content and form of experiencing *I’m here to listen* (verified) .................... 107
Table 4: Subsequent content and form of experiencing *I’m here to listen* (verified) .......... 109
Table 5: Interpreted meaning or purpose of *I’m here to listen* (verified) .......................... 112
Table 6: Initial content and form of experiencing *Sound, proof* (verified) ......................... 120
Table 7: Subsequent content and form of experiencing *Sound, proof* (verified) ............... 121
Table 8: Interpreted meaning or purpose of *Sound, proof* (verified) ................................. 124
Table 9: Initial content and form of experiencing *Over hear* (verified) ............................. 131
Table 10: Subsequent content and form of experiencing *Over hear* (verified) ................. 132
Table 11: Interpreted meaning or purpose of *Over hear* (verified) .................................... 135
Table 12: Initial content and form of experiencing *Memory walk* (verified) .................... 148
Table 13: Subsequent content and form of experiencing *Memory Walk* (verified) ............ 149
Table 14: Interpreted meaning or purpose of *Memory walk* (verified) ............................ 153

Figure 1: *I’m here to listen* as exhibited at VCA Student Gallery, February 2015 ............. 102
Figure 2: *I’m here to listen* Max patch .................................................................................. 103
Figure 3: *I’m here to listen* draft version instruction screen .................................................. 104
Figure 4: *Sound, proof* as exhibited at VCA Student Gallery, February 2015 .................. 116
Figure 5: *Sound, proof* as exhibited at VCA Student Gallery, February 2015, front view 118
Figure 6: *Over hear* as exhibited at VCA Student Gallery, February 2015 ....................... 127
Figure 7: *Over hear* as exhibited at VCA Student Gallery, February 2015, side view ...... 139
Figure 8: *Over hear* as exhibited at VCA Student Gallery, February 2015, corner view... 140
Figure 9: *Memory walk* as exhibited at VCA Student Gallery, February 2015 ............... 142
Figure 10: *Memory walk* as exhibited at VCA Student Gallery, February 2015, walk in .. 145
Figure 11: *Memory walk* as exhibited at VCA Student Gallery, February 2015, listening 145
Figure 12: *Memory walk* as exhibited at VCA Student Gallery, February 2015, walk out 146
**Introduction: How can an artist make sonic artworks that critique listening?**

Sound as experienced by a listener is the product of a complex process of the ear and auditory system physically sensing pressure fluctuations, and the mind attending to and interpreting them. The capability of an individual’s sensory organs to bear, and that person’s ability to listen to those sensations, determines what sounds it is possible for them to perceive (Beament, 2001).

As they are made of sound, works of “sonic art” as experienced by their listeners are also products of this process of hearing and listening, and to be experienced as art they depend on the abilities of their listeners to attend to and interpret sensations in a certain way. The sonic events that constitute a piece of music are listened to as music, those that constitute a poem are listened to as poetry, those that constitute a work of sound art are listened to as sound art, etc. and these acts of listening are crucial to the existence of these sounds as meaningful experiences (Small, 1998, Corradi Fiumara, 1990).

Sonic artists have a rich history of critical engagement with sound through their art, indeed historians and theorists like Licht (2007) or LaBelle (2006) have argued that most art under the banner “sound art” is largely about sound and its nature as an artistic medium. Some sonic artists – such as Grisey, or Amacher – have also used their art to explore the capabilities of what the human auditory system can bear, drawing inspiration from psychoacoustics (1987, 2008). However, critical engagement by sonic artists with the acts of listening upon which sound depends is far less common, particularly through the medium of sonic artworks themselves; this is the subject of this project.

In the past when artists have critiqued listening explicitly it has typically been through the medium of verbal or written statements rather than artworks. For example, by proposing

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1 I use the terms sonic art and sonic artist in the same manner as Trevor Wishart, as an umbrella term to refer to any art using sound as its primary medium (e.g. music, sound art, musique concrete, etc.), and the artists that produce it (1996).
alterations to an established form of aesthetic listening – as in Varese’s (Bernard, 1987) and Cage’s (1961) calls for musical listening to encompass all sound – or, proposing an entirely new form of aesthetic listening – as in Schaeffer’s introduction of *acousmatic listening* alongside *musique concrete* (2004).

It is possible to read *implied* critiques of listening into many sonic artworks, particularly in the case of artworks introducing innovative techniques or styles to listeners. For example, Schoenberg’s *Five Piano Pieces*’ (ca.1920-23/1951) introduction of serial technique, or Cowell’s *The Tides of Manaunaun*’s (1912/1960) introduction of pitch clusters, can be read as implicitly critiquing the act of listening to music. They do so by presenting alternate visions of what organisational priorities, or acceptable sounds, constitute music, therefore offering alternate visions of the values and assumptions that constitute the *act of listening to it*. However, in instances like these there is rarely any indication that a critique of listening was of particular concern to the artist, let alone foremost in their intent in producing these works. Sonic artworks that set out to overtly, intentionally critique listening are rare in the existing corpus of artworks, and methods for achieving critique of listening as a focus of artistic intent in sonic art have yet to be codified.

**Personal context**

My own critical engagement with listening and awareness of the lack of criticality of it in sonic art emerged gradually, through a general interest in sound perception, and listening in particular, rooted in experiences from my personal and creative life.

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2 The question of *explicit* versus *implicit* critique of listening may seem irrelevant to subscribers to Kosuth’s argument for art as a tautological condition – “art’s only claim is for art, art is the definition of art” (1991). However, if one begins from the position that sonic art does not exist purely in itself, but rather exists for listeners as a product of their interaction with stimuli through the act of listening – as I do – then, putting the listener before the artwork, if an artwork is to critique listening then ideally it should do so for the listener. An implicit critique of listening, as occurs in the many examples in Chapter 1, happens to the listener – the listener may or may not be aware of it, and it does not exist for them unless something calls their attention to the effect in some way. While there is no reason for an artist not to embed an implicit critique for listeners to find in a work if they so choose, there is also no reason not to embed an explicit critique either. Putting the listener first, if critiquing listening is part of the intent of the work, then an explicit critique – if achievable, as explored in this project – is preferable as it happens unambiguously for the listener.

3 The status of historical sonic artworks and movements in sonic art as critiques of listening is discussed at length in *Chapter 1: Literature: How has listening been critiqued?*
Growing up and into my working life, I spent a lot of time with people with various levels of hearing loss. As a child, living with grandparents/great-grandparents with hearing deficits; as an adolescent, observing early role models of sonic professionals with hearing difficulties — my uncle, a sound engineer with mild hearing damage from driving trucks, my high school music teacher, who suffered severe otosclerosis; as a young man, working in aged care, with clients with moderate to severe hearing loss. Through these experiences I observed in close quarters the intensified mental effort made to compensate for a loss of ability to hear, and I developed an awareness of, and interest in, the importance of listening in perceiving sound. This carried over into my creative work.

From early in my training and career as a musician I placed importance on learning “by ear” as the most efficient route to an understanding of the performance of work by others, and of how to make art in a given genre or form. Learning what a listener values and what “sounds right” in a given context has always been my first concern when performing or making art. Also, as my work moved across genres in music, and into other sonic forms like sound design, I began to have experiences of applying the wrong set of values to sound in a given context as a listener, either by accident or deliberate experiment. For instance, I had experiences of naively listening to unfamiliar kinds of music with the wrong value system — my early encounters with 20th century classical music and listening to them as someone more accustomed to jazz or rock. In addition, I had experiences of deliberately listening to sounds as things they were not — for example listening to a person’s speech patterns as music.

These experiences of mis-hearing gave me insight into how listening differs between contexts, and helped me to develop a critical awareness of listening, as I grew more acutely aware that how I listen biases and limits what I am able to perceive, and the qualities I am able to appreciate in the sounds I hear. Over time I came to value this heightened critical awareness of listening, and to wonder why criticality of listening was not a regular subject of exploration for sonic artists and their artworks.

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4 A condition wherein abnormal growth of bone in the middle ear causes progressive hearing loss
**Problem**

The lack of sonic artworks that overtly, intentionally critique listening represents a significant gap in the accomplishments of sonic art. It also exposes an opportunity for artists and artist-researchers: to conduct original work in developing and testing methods for producing art that overtly critiques listening; and ultimately to enliven artists’ and listeners’ engagement with the acts of perception integral to sonic art.

The problem this gap presents is that of determining how a sonic artwork can engage critically with the act of listening.

**Aim and scope**

My aim for this project was to fill this gap in knowledge and creative practice, and to establish how to produce sonic artworks that could critically engage with the act of listening.

The project’s scope was focused on creative practice – determining and applying a method for making art that could critique listening, making a series of works – and on listener experience – determining and applying a method for ascertaining the effects of those works on listeners, whether they were perceived as, or induced, critical reflections on listening.

**Research question**

My approach to the project’s aim is summed up in the research question: “How can sonic artworks be made that form critiques of listening?”

- “How can” refers to the determination of methods;
- “sonic artworks be made” refers to the production of artworks whose primary medium is sound;
- “that form critiques of” refers to the structuring of critical discussion of listening into the artworks from the artist’s perspective, and the expected resulting stimulation of experiences of critical engagement with listening from listeners’ perspectives;
- “listening?” refers to the act of perceiving sound.
Thesis overview

This thesis consists of four chapters, each driven by and titled after a variation of the project’s core question:

Chapter 1: Literature review:
How has listening been critiqued in the past?
In this chapter, I situate this project in relation to the literature on auditory perception and sonic art. I establish preceding examples and methods of critical engagement with listening that are extant in written texts and artworks across a range of disciplines, including: psychophysics and auditory neuroscience, listening studies, philosophy, ethnomusicology, western art music, musique concrete, acoustic ecology, deep listening, and sound art. Further, in doing so I discuss the bearing of the literature on the resolution of the project’s core problem, and illustrate the particular gap in knowledge and creative practice that this project addresses. I also introduce the concept of *types* or *variations* of the act of listening, used later as a core element in the project’s creative methodology.

Chapter 2: Methodology:
How does an artist justify a sonic artwork as a critique of listening?
In this chapter, I discuss the theoretical underpinnings used to structure and justify artworks as critiques of listening from an artist’s perspective, and the methods used to determine whether sonic artworks result in critical reflection on listening by listeners. I describe the rationale by which this project justifies sonic artworks as critically engaging with their own perception, drawing on *schema* theory to determine the logic and standards of judgement used by the act of listening, and *immanent critique* and the aforementioned variations of listening to turn listening’s system of judgement on itself. In this chapter, I also describe this project’s adaptation to the creative process of the methods of *heuristic research*, the showing/interview procedure, and questions used to collect listener data. This includes description of the method of data evaluation used to distil listeners’ experiences and test the artworks’ achievement of their intent, and test whether they resulted in critical reflection on listening by listeners.
Chapter 3: Data evaluation:

What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

In this chapter, I describe each artwork’s intent and inspiration, and its realisation in its draft form as shown to the participants. This includes the description of its intended structuring of listener experience, the types of listening it intends to invoke, and my interpretation of its meaning or purpose. Following these descriptions, for each work I present excerpts from, and analysis of, the participants’ responses to the interview questions from the showings, including my interpretation of the results of the tests of the works’ success, and the application of the results to the finalisation of the works and their public exhibition in February 2015.

Conclusion:

Can sonic artworks critique listening?

In the conclusion, I summarize the project’s findings and conclusions, reflectively evaluate the project and its achievements, and suggest directions for further research and creative work.

Significance

Ultimately, the significance of this project’s outputs as contributions to knowledge extends to:

- The production and theorization of sonic art, through its contribution of tangible solutions to the problem of how to make sonic artworks that engage critically with listening.
- The methodology of art production as research, through its contribution to the development of methods for rationalizing and testing the success of the intent of sonic artworks.
The theorization of sonic art, through its contribution to the interpretation of historical sonic art movements and innovations, as critical engagements with listening.
Chapter 1:

Literature review: How has listening been critiqued in the past?

In order to determine how to make sonic artworks that overtly and intentionally critique the act of listening, it was necessary for me to identify strategies that had been successfully used to critique listening in the past. For this I looked to the works of and literature concerning the sonic arts, although given the apparent lack of focus on this particular problem as an overt concern within the sonic arts, I also looked further afield to literature from other disciplines dealing with auditory perception. In this chapter, I discuss the literature outside the sonic arts first, given its greater utility to the project’s problem.

As listening is a fundamental part of how people experience the world, the total literature concerning it is vast. It extends across a number of disciplines – neatly illustrated by the recent interdisciplinary anthology *On Listening* (Carlyle and Lane, 2013) – and deep into the history of Western culture – through early modernity with texts like Locke’s *An essay concerning human understanding* (1715-16) to Greek antiquity with texts like Aristotle’s *On the soul* and *On sense and the sensible* (ca. 350 B.C.E./1931, ca. 350 B.C.E./2001). Reflecting this breadth, the literature gathered in this chapter is diverse; it has been chosen to represent the perspectives of the contemporary disciplines that have made major contributions to the study of listening and/or sonic art’s engagement with it.

The selection of texts is not intended as an exhaustive survey of the work in all of these disciplines – this would be impractical and unnecessary in this context – but as an array of examples of how critical engagement with listening has been undertaken, and the relevance and adaptability of these various approaches to the production of sonic art. In some cases these examples may be of a general approach typical to a discipline, in others, a view favoured by a particularly significant scholar or artist.
For each I briefly outline a perspective, key ideas, arguments, and/or artworks; the status of the engagement with listening as implicitly or overtly critical; and its apparent or likely effects in encouraging critical reflection on listening by listeners. In so doing I gather tools for the resolution of the project’s core problem in the later chapters, and further illustrate the gap in knowledge addressed by this project.

I begin by looking for examples of criticality of listening in texts relating to the natural sciences’ understanding of auditory perception, taking my cue from other artists’ engagement with psychoacoustics as a basis for exploring sound perception through art (Amacher, 2008, Grisey and Welbourn, 1987). I then look to the human sciences and the discipline of listening studies, given its status as a discipline whose sole focus is on the problem of interrogating listening. Following listening studies, I look to several philosophers’ critiques of listening in general, and of listening specifically in relation to language, given the influence of philosophy on contemporary art and art-as-research, and philosophy’s recent increased attention to listening. I then look to critiques of listening directly concerned with cultural production, in particular the sonic art form of music, from cultural theorists and from the discipline of ethnomusicology. This is followed by a return to artworks themselves, as I interpret musical works and movements as critiques of listening. I finish this chapter by looking at the younger sonic forms of the late 20th and early 21st centuries, their key texts, and their engagement with acts of listening.

Psychoacoustics and auditory neuroscience

The two disciplines that dominate the study of auditory perception in the natural sciences are psychoacoustics and its younger relative auditory neuroscience. Founded in the 19th century on texts such as Helmholtz’s landmark *On the sensations of tone as a physiological basis for the theory of music* (1875/1998), psychoacoustics is the study of the relationship between sounds as objectively measurable phenomena, and those phenomena as subjectively experienced by human beings. Its overarching aim is to determine the mechanisms by which sounds occurring in the world are received by the ear and human auditory system, and the limitations of that system (Fastl et al., 2007, Handel, 1989).
General texts on psychoacoustics, such as Fastl et al.’s *Psychoacoustics: facts and models* (2007) or Moore’s *An introduction to the psychology of hearing* (2012), serve to give a useful indication of the discipline’s scope and objectives, as well as collecting and summarizing the knowledge currently accepted as forming its basis and outlining current popular avenues of research. These include: the thresholds of audibility; damage to the auditory system; information processing in the auditory system; masking effects; pitch perception; perception of change in sound stimuli; loudness perception; perception of timbre characteristics; sensations caused by fluctuating stimuli; time and rhythm perception; distortion effects of the hearing mechanism; binaural hearing and space perception; and sound source and speech identification. As well, a preponderance exists of specialised texts that focus on and elucidate specialised areas of psychoacoustics in detail. These include Yost et al.’s *Auditory perception of sound sources* (2008), Bregman’s *Auditory scene analysis: the perceptual organization of sound* (1990), and Roederer’s *Physics and psychophysics of music* (2008), the last of which looks at psychoacoustics’ application to the understanding of cultural phenomena such as music.

Auditory neuroscience builds on the work of psychoacoustics, but exploiting recent advances in medical imaging technology, it focuses on the neural processing component of auditory perception, and observation of the brain when encountering sound stimuli, endeavouring to “explain auditory perception in terms of the neural processes that take place in different parts of the auditory system” (Schnupp et al., 2011). General texts such as Schnupp et al.’s *Auditory neuroscience: making sense of sound* (2011) serve to summarize the scope, aims, currently accepted knowledge, and active research avenues of the field. These include: neural encoding of sound impulses by the cochlea; representation of pitch and other psychoacoustic phenomena in the brain; speech sound encoding; the role of various parts of the cerebral cortex in speech processing; and the roles of primary and higher-order cortical fields. Also: the neural basis of sound localisation; neural correlates of auditory scene analysis; auditory perception and neural development and plasticity; and auditory prosthesis development. There are numerous specialised texts focussing on particular areas of interest in auditory neuroscience. These include: correlations in perception across sensory modalities as in Handel’s *Perceptual coherence: hearing and seeing* (2006, Myles and Kalb, 2009); the relationship between auditory perception and the human mirror system (Gazzola et al., 2006, Gaspare et al., 2008, Craighero and Rizzolatti,
2004, Agnew et al., 2007, Kohler et al., 2002);\(^5\) and like Roederer in psychoacoustics, texts such as Peretz and Zatorre’s *The cognitive neuroscience of music* (2003) apply the discoveries of auditory neuroscience to the interpretation of musical phenomena.

There are also texts that draw together the discoveries of both psychoacoustics and auditory neuroscience, such as Handel’s *Listening: an introduction to the perception of auditory events* (1989) which endeavours to give a wide ranging description of the natural sciences’ understanding of auditory perception.\(^6\) Also, once again like Roederer, and Peretz and Zatorre, there are texts like Beament’s *How we hear music: the relationship between music and the hearing mechanism* (2001) which apply the discoveries of both disciplines to the interpretation of musical phenomena.

All of these texts based in the natural sciences’ interrogation of auditory perception have in common a core concern with understanding the auditory system’s ability to sense sound. Unfortunately for the purposes of this project, this concern with the function of auditory sensing overrides exploration of the experience and act of perceiving sound, based as it is on a mechanistic view of the body that does not yet adequately encompass the experiential. In the words of Steven Handel in his conclusion to *Listening* (1989), the natural sciences leave “two gaps…the listener’s knowledge and experience and … goals and intentions in representing the world…[and]…the experience of listening, the experience of being in the auditory world, listening to one’s self and the world” (Handel, 1989).

The literature of psychoacoustics and auditory neuroscience can be interpreted as implicitly enabling critical reflection on listening, through readers comparing their own experiences of perceiving sound with descriptions of the human auditory system’s

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\(^5\) Mirror neurons and the human mirror system are neurons and areas of the brain whose activity correlates with reported experiences and behaviors associated with empathy; they have been a particularly popular subject of research in this discipline, and neuroscience more generally over the past decade or so.

\(^6\) In the case of the title of Handel’s book I consider the use of the term *listening* misleading, as he makes no effort to account for listener knowledge, experience, or goals in the body of the text, focusing solely on objectively measurable data of the mechanisms of perception. He admits this omission in his conclusion.
capabilities, and the artefacts its limitations introduce. Nevertheless, their exclusion of listener experience and agency rules out overt or intentional critical engagement with the act of listening within their research, and hence rules out direct application of their ideas to the production of art that critiques listening.

To enable critical engagement with listening in the same way that psychoacoustics and auditory neuroscience do, a sonic artwork would have to demonstrate to its listeners the mechanisms and limitations of the human auditory system. However, assuming its success in doing so, any resulting engagement with listening would still only be possible rather than likely, given these disciplines’ concern with what is more readily described as bearing, rather the experience and act of perceiving sound.

Listening studies

The dominant discipline investigating auditory perception in the human sciences is listening studies, a branch of communication studies that explores what makes a good listener, and what listening is as an experience and behaviour. It does so by devising and testing systems for measuring and teaching good listening, as well as models of how listening works as a cognitive process. Some listening studies researchers are influenced by auditory neuroscience and psychoacoustics, but their work is defined by an understanding of listening as a subjective, and an experiential phenomenon (Worthington and Fitch-Hauser, 2012).

Listening studies’ emphasis on interrogating the concept of listening in addition to listener skill is a relatively recent phenomenon, which has been gaining traction in the listening studies community since the late 1980s. The collection Listening Behaviour: measurement and application (Bostrom, 1990) as well as giving an overview of work across the discipline at the time, can be taken as one of a group of publications establishing a trend to re-evaluate the definition of listening. In his introduction Bostrom summarizes the

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7 Some texts even include copies of recordings used in auditory testing experiments as accompanying CDs or online supplementary material so that the reader may reproduce psychoacoustic experiments for themselves in order to better understand their own perception and the information about it presented (Fastl et al., 2007, Schnupp et al., 2011).
trajectory of listening studies research up to the end of the 1980s, stating that it had been based, by and large, on evaluating listening as a communication and learning skill; Bostrom judges this position to be an oversimplification, setting the scene for a renewal and expansion of the definition of listening. In a later chapter Bostrom describes his own research, which operates on a limited definition of listening, investigating the efficacy of listening as data retention and recall across a series of proposed types of memory using the Kentucky Comprehensive Listening Test. He acknowledges his focus on memory only illuminates an aspect of listening, and proposes a broader data processing model of listening within which his proposed memory types might operate, suggesting further work toward more complex conceptions of listening.

Contemporaneously, Glenn (1989) and Witkin (1990) were also questioning the basis of listening research, citing the lack of a consensus definition of listening as a fundamental flaw in the discipline of listening studies. Glenn attempted to tackle this issue in *A Content Analysis of Fifty Definitions of Listening*, by comparing definitions of listening taken from published research in the hope of extracting commonalities between them, but due to the diversity and contradiction of the examples gathered the problem was left unresolved. Since then, the issue has been revisited by Wolvin et al. in *An Assessment of the “Intellectual Discussion” on Listening Theory and Research* (1999), and Janusik in *Researching Listening From The Inside Out: The Relationship Between Conversational Listening Span And Perceived Communicative Competence* (2004); also by Bodie et al. in *Priorities of Listening Research: Four Interrelated Initiatives, A White Paper Sponsored by the Research Committee of the International Listening Association* (2008a) and *What Would a Unified Field of Listening Look Like? A Proposal Linking Past Perspectives and Future Endeavors* (2008b); and Bostrom again in *Rethinking Conceptual Approaches to the Study of “Listening”* (2011). Across these publications no absolute definition of listening has been reached, rather a continuous questioning of listening’s definition has been normalised, to the point where it has become a core activity of the discipline endorsed by its peak body (Bodie et al., 2008a).

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8 A test of the aural assimilation of information built around the concepts of “short-term, short-term with rehearsal, and intermediate-term retention”. *Listening Behavior* includes a copy of the Kentucky Comprehensive Listening Test in an appendix (Bostrom, 1990).

9 Towards the end of his career Bostrom expressed further regret over his focus on memory at the expense of understanding listening as a whole, and admitted his choice was influenced by the relative ease of testing data retention and recall as a metric of good listening (Bostrom, 2011).
Indeed the nearest thing to a common definition across the discipline can be expressed in a collection of concepts that appear most often across studies; these are: perception, attention, interpretation, remembering, and response (Glenn, 1989, Janusik, 2004).

On the surface, listening studies’ ongoing interrogation of listening would appear to make it an ideal model for the purposes of this project, however the way in which it pursues that interrogation dispels this idea. These researchers explore listening by collecting and interpreting observations of listener experiences, and discussing the relation of these experiences to proposed models of listening, but the listeners that take part in the research are not privy to this critical engagement with listening in the experiences of listening they are put through. The critique of listening exists apart from the experience of listening: in writing. The readers of these studies are encouraged to engage critically with listening by being presented with models that conceptualise the structure of listening, sets of characteristics and skills that constitute good listening, and statements that highlight their inherent limitations. The listeners involved in these studies are not included, unless they are also readers of the studies’ results (of which there is no guarantee).

For an artwork to critique listening in the same way that listening studies does with its readers, it would have to overtly present listeners with and comment on a model of the structure of listening, or standards of good listening, whilst also highlighting their inherent limitations.

**Listening and philosophy**

Historically, the first discipline to seek insight into the structure and nature of the experience of auditory perception was philosophy, beginning in ancient Greece (ca. 369 B.C.E./2004, ca. 360 B.C.E./2001, ca. 350 B.C.E./1931). Plato’s and Aristotle’s descriptions of the mechanisms and the experience of sensing sound – Aristotle making a clear distinction between the ability to hear sound and the act of perceiving it in *On the soul* (ca. 350 B.C.E./2001) – form the bedrock of contemporary understanding of auditory perception. The influence of their models and descriptions extends to the aforementioned psychoacoustics, auditory neuroscience, and listening studies, as well as
to contemporary philosophies, in particular phenomenology, and the phenomenology of perception.

When it has been concerned with perception, a visual bias has dominated most modern philosophy,\(^\text{10}\) but there has been a recent turn towards the auditory. The writers represented here have all taken part in and made prominent contributions to this turn, each critiquing listening, or using listening as a tool of critique in a unique way. Given his emphasis on the act and experience of listening, and on the multitude of variations of listening – the repercussions of which affects my interpretation of the remaining literature, and the formulation of my methodology in the following chapter – I begin with Don Ihde.

**Ihde: phenomenology of listening**

Ihde, in *Listening and Voice: phenomenologies of sound* (1976/2007) sets out to interrogate the nature of what listening is as an experience. He approaches it as a specialised example of perception, following in the mould of Merleau-Ponty’s *Phenomenology of Perception* (1945/2005), while also endeavouring to balance the conceptions of phenomenology present in Husserl’s *Ideas* (1913/2012), and Heidegger’s *Being and Time* (1927/2010).

Ihde’s critique of listening consists of dense descriptions of the qualities of the experience of listening, and commentary on them.

Ihde describes a generalised experience of listening, using the process of description and phenomenological reduction to explore and define its properties as a perceptual field. According to Ihde, as a field listening is: explicitly temporal; omnidirectional; has silence and amplitude as its horizons; detects the shapes, textures, and surfaces of the physical world surrounding the listener; and has focussing and filtering mechanisms that are cognitive rather than physical.\(^\text{11}\) In part, his description consists of isolation of differences between the qualities of the auditory field and those of the visual field. In Ihde’s opinion visual perception is the culturally dominant sense whose influence limits

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\(^{10}\) As discussed below Ihde, Corradi Fiumara, and Nancy all comment on the dominance of the visual in philosophy and the detrimental effect of this dominance on the progress of philosophy (Ihde, 1976/2007, Corradi Fiumara, 1990, Nancy, 2007).

\(^{11}\) As opposed to seeing, and the eyes with their lids and lenses that can filter and focus physically.
philosophers’ understanding of experiential phenomena that differ between perceptual fields, restricting their descriptive world to visually apprehended “mute objects” (1976/2007). He comments on the difference in the experience of space: which in the auditory field projects in all directions in a sphere and is bounded by distance and amplitude; but which in the visual field projects only forward in a cone and is bounded by the surface sensitivity of the retina, and the lenses’ focal depth. He also comments on the difference in the experience of time: which in the auditory field is explicit and inescapable; but which can be illusorily avoided in the visual field with the perception of certain static objects, despite the inherent temporality of consciousness and physical existence.

As well as his description of a generalised experience of listening and the resultant definition of listening as a perceptual field, Ihde also dedicates chapters of Listening and Voice to focussing on listening in specific contexts and to specific things, and the characteristic structure and quality of these experiences. These are: listening and imagination, listening and vocalising, and listening mediated by recording technologies. That he does so exposes a crucial characteristic of listening that is easily overlooked, and indeed appears to be by the aforementioned listening studies researchers: that listening is not one thing, but many.

Reading Ihde’s work, it can be seen that listening has a multitude of variations, and that what listening is and how it functions changes with the context it is operating in and the object to which it is directed, each relationship to sound having its own character, objectives, and standards of what should be listened to. Listening to imagined sound, listening to speech, listening to recorded sound all relate to one another and come under the umbrella term of “listening”, but are also all distinct from one another as acts and experiences.

Ihde’s descriptions of listening lead readers through a virtual experience of listening that overtly critiques that experience, through commentary on its qualities and structure and comparison of those characteristics to those of other modes of perception. These critical reflections on listening are restricted, to an experience of reading a second-hand account

12 As well as Adorno and Chion – discussed below – who also propose various types or modes of listening
of an experience of listening, although their extrapolation to readers’ own experiences of listening is also possible.

For a sonic artwork to critique a generalised form of listening in the same way that Ihde’s phenomenology of listening does, it would have to lead its listeners through an experience of listening that also comments on its own qualities and structure, and possibly on the differences between the qualities and structures of multiple perceptual modes – i.e. listening, looking, etc. For it to critique multiple variations of the experience of listening in the way that Ihde does, it would need to construct an experience for listeners that somehow comments on the qualities and structure of multiple types of listening.

Plural listenings
The plurality of listening exposed by Ihde’s discussion of listening in relation to various contexts and objects introduces an additional layer that must be considered in both assessing the critiques of others, and devising my own. If I am, or someone else is, undertaking a critique of listening, what type of listening is under consideration and what are its qualities? Is it listening-in-general or a specialised variation of listening attached to a particular context, or relationship to an object? For example, looking back to the discipline of listening studies, despite its name the majority of research within it does not in fact appear to be concerned with listening-in-general but rather with the specific act of listening to language; listening studies’ models and tests for the most part being constructed around the comprehension and retention of linguistically transmitted information.

The remaining discussion of the literature includes observation of bias towards specialised types of listening, and the effect of this bias on the potential adaptation of the observed approaches to critical engagement with listening to the production of art that seeks to critique listening beyond the limitations of any one specialised type.
Corradi Fiumara: philosophy of listening to language

In *The other side of language: a philosophy of listening* (1990) Gemma Corradi Fiumara discusses listening specifically in terms of listening to language, and considers listening – in the context of philosophical discourse – the neglected vital complement to language and speech. She makes this case through a critique of what she calls *logocentric culture* and the role and evolution of the relationship of listening to questioning, discourse, silence, and interaction in the Western philosophical tradition. She proposes a philosophy based on assimilation and transformation of self, concepts she identifies as characteristic of listening.

According to Corradi Fiumara, without a listener to listen to it, no utterance could have meaning, and furthermore language could not exist at all, nor could speakers. Beyond the listener/speaker relationship, she considers listening – the ability to assimilate, grow and cooperatively create meaning with sound – to be more vital to a person’s humanity, to *bominize* or make human, more so than language and speech – the ability to project meaning. She also asserts that listening-as-assimilation is the more laborious role in any exchange, and that to truly listen and assimilate without translating or transforming the listened-to requires the creation of a silence within the listener, and a making of space within the self to gather and accept the ideas taken in. For her, true listening is a form of rationality that goes along with but beyond the heard, refraining from opposition, but transcending violence and victimhood through vigilance.

Corradi Fiumara’s critical discussion of listening and its relationship to language exposes to readers the essential creative role of listening in sound-based communication, and its status as a condition for the existence of language and discourse. Through her argument, she overtly invites her readers to critically engage with their own experiences of listening to language, and their agency in the process of linguistic interaction. By situating language as a product of the process of its being listened to and of social exchange, and by extrapolating this idea through philosophy’s concern with language, she also uses listening to critique Western philosophy as a whole, as something that speaks but does not listen. This also invites readers to critically engage with their own experiences of listening to philosophy as a form of linguistic, intellectual, and ideological interchange, and the biases implied in the notions of argument and listening it employs.
For a sonic artwork to critique listening in the same way as Corradi Fiumara’s critique of listening to language, it would need to demonstrate to listeners their agency in listening to sound, and how listening simultaneously constructs the meaning of what is listened to, and alters the listener through assimilation of the listened to.

Nancy: listening to philosophy

In *Listening* (2007) Jean-Luc Nancy also discusses listening in relation to language, specifically the acts of listening to philosophy, and listening influenced by philosophy, as well as the nascent potential of listening as a conceptual tool for the further development of philosophy. He situates these in opposition to the acts of reading philosophy, and looking at the world through it, which he argues constitutes most philosophers’ default stance, to their detriment.¹³

Nancy uses the ambiguity of the multiple meanings inferred by the term listening¹⁴ as a basis for discussing the state of contemporary philosophy and its visual bias, and what he believes are the false limitations of meaning placed on the term “listening” by philosophy: that is, listening as understanding. He attempts to separate the notion of understanding from listening, claiming that true listening is “pre-phenomenological”, and that the “resonant subject” exists “back from the phenomenological subject” (Nancy, 2007), and throughout argues that to be authentic listening must be separated from judgement: it must be passive, *acousmatic*.¹⁵

Nancy’s critical discussion and comparison of the meanings associated with words referring to auditory perception and their usage in the philosophical context, exposes

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¹³ Despite the apparent similarities between their ideas, Nancy makes no mention of Corradi Fiumara, and there appears to be no direct connection between the two.

¹⁴ Nancy writes in French, so in the original he is playing off the branching and related meanings of écoute, entendre, entente, entend, however the translation to “listening” in English, and the premise that the meaning of the concept “listening” and terms referring to it are unstable holds true.

¹⁵ *Acousmatic listening*, a term coined by Pierre Schaeffer and employed by Nancy, refers to listening that is only concerned with the immanent properties of the sound heard, independent of judgment of its source, meaning, or associations.
readers to philosophy’s bias towards the visual and writing, and asks readers to question
the association of the concepts of understanding and judgement with the term listening.
He also works toward an approach to the apprehension and practice of philosophy that
begins from an auditory rather than visual standpoint. He openly invites his readers to
engage critically with their own experiences of listening to, reading, and pursuing
philosophy and to allow a pacified version of the former to take precedence over and
shape the latter two.

For a sonic artwork to critique listening in the same way that Nancy critiques the acts of
listening to philosophy and listening shaped by philosophy, it would need to demonstrate
to listeners the relationships between the multiple meanings of the term listening, and the
contradictions and limitations of meaning that arise in its application. For a sonic artwork
to imitate Nancy’s denial of judgment and understanding as components of listening, it
would need to demonstrate to listeners the limitations on the possibilities of experiences
available to them, caused by their acts of judgement in listening.

Listening and culture

While the above texts have used philosophy to discuss listening, and conversely used
listening to discuss philosophy and its preoccupations with language, those discussed in
the following section focus on listening in relation to culture, society, and cultural
production. For the most part their critiques of listening revolve around the act of
listening to music and phenomena associated with it, including: the evolution of musical
listening in modern Western society and the implications of that evolution to culture ;
and the implications of that evolution to the evolution of Western society more broadly.
Also: musical listening’s nature, agency, and cultural and social construction; the
relationship of various types of listening and visual perception in cinema; and musical
listening’s variations between cultures. Given his prominence and influence as a cultural
theorist and philosopher of music, his status as an artist as well as a philosopher/cultural
theorist, and his position as an early theorist of specialised variations of the act of
listening to music, I begin with Theodor Adorno.
Adorno: listening to music, technology, culture

Adorno wrote extensively on the act of listening to music and its evolution, and its implications for the evolution of culture. In various essays he theorises about the effects on musical listening of the emergence of recording and broadcast technologies, of 20th century popular music, and of the culture industry that markets them (Adorno, 1973b, 2001, 2002, 2006, 2009). He argues that the advent of recording and broadcast technologies encourages, through elevated agency in listening via a machine that can be turned on and off by the listener, a focus on the aesthetic qualities of small details in a musical work and a loss of appreciation for the aesthetic qualities of the formal architecture of a musical work. He characterises this as a move from structural listening – which he places great value on – to an “infantile” or atomistic listening – to which he is antagonistic. According to Adorno this new form of listening favours popular and jazz forms – also targets for his antagonism – and erodes the authority and appreciation of the serious music of the second Viennese school and Adorno’s own musical mentors Berg and Schoenberg, and their predecessors in the Germanic classical tradition – Mahler, Wagner, Beethoven, etc.

Adorno’s exploration of the nature of listening to music, theorising the changes to the act of listening to music wrought by technological mediation and marketing, depicts for readers a model of musical listening that has more than one type, has more than one value, and is affected by the listener’s relationship to the source of sound. Through his critique Adorno explicitly provokes readers to engage critically with their own experiences of listening to music in person and when mediated by technology, and the value of their listening experiences.

For a sonic artwork to critique listening in the same way Adorno critiques the act of listening to music, it would have to demonstrate to listeners the qualities of an experience of listening, and those of an altered form of that experience through the addition of

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16 Adorno’s arguments have received harsh criticism in sociological circles, to which he addressed much of his writing, due to its purely theoretical nature and neglect of empirical testing. There have been recent attempts to ameliorate this deficiency and validate his theories, Tia DeNora’s After Adorno: rethinking music sociology is a prime example (2003).
some form of mediation. To fully imitate Adorno’s critique it would also need to lead listeners to make a qualitative judgement of the differences between the two states.

Attali: listening to noise, music, technology, culture
Jacques Attali, in *Noise: the political economy of music* (1985), uses developments in the acts of listening to sound, to music, and to recorded sound, as conceptual filters through which to discuss social, political, and economic developments in the history of the Western world, and ruminates on their utility for forecasting social, political, and economic trends. He does so by comparing the history of music’s status in society and the circumstances of its consumption and being listened to, to the history of the structure of the society within which that music exists.17

Like Nancy, Attali uses the relative unfamiliarity of *listening* as opposed to *looking* in the realm of critical discourse as a tool to demand a radical re-perceiving of the world and to question distributions of power, building on Marxist theories of political economy. He depicts listening to noise, music, and recordings as political acts mediating power relationships, and treats the ways in which music has been listened to throughout history as analogies: for the socio-economic situations in which those forms of listening operated, or the socio-economic situations that he thinks those forms of listening anticipated structurally. Attali situates *noise* as the base state of *sound* – presumably preferring the combative associations of the term fitting his argument about power and violence – as in his argument noise only takes form as sound or music when listened to. He goes so far as to equate listening to music and to noise in general with participation in ritual violence, reflecting the subsumed violence implicit in the power relationships that for him, these listening situations both *are* and *represent* in a broader societal context.

Attali’s critique of the distributions of power that occur in the act of listening, and that they can be read as representing, overtly encourages his readers to critically reflect on the influence and implications of their acts of listening on the social relationships in which

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17 Richard Leppert advances a similar historical argument, but at one more remove: looking at the history of representations of music and listening in painting and their relationship to the history of music’s social status, and of the structure of Western society and cultural consumption (Leppert, 1993).
they participate. His critique of the relationship between noise and sound encourages readers to critically engage with their agency in listening and constructing the sonic world.

For a sonic artwork to critique listening in the same way as Attali’s *Noise*, it would need to illustrate for listeners how their acts of listening construct sound from a substrate of noise, the social and power relationships implicit in acts of listening, and the parallels between the structures of listening experiences and social, political, and economic phenomena.

Small: listening to music, society
In *Musicking* (1998), in a manner similar to Corradi Fiumara’s argument regarding the necessity of listening to the existence of language and discourse, Christopher Small argues that listening allows music to take place as a process of becoming in the course of its being listened to. He argues, further, that music cannot exist outside this process of becoming – as material object/artefact/phenomenon – that it is only ever a process of apprehension shared by various agents. To represent this idea of music-as-experiential-process he appropriates and repurposes the archaic verb *musicking* in opposition to and as a replacement for the noun *music*, which he believes to be a misnomer. Small pursues this argument by way of a Geertzian thick analysis of the experience of listening to music in a concert hall, and describing the historical social and cultural developments that gave rise to this particular listening situation.

Small also argues that in addition to constructing music as perceived, the shared act of musicking is pivotal to the formation and experience of relationships and identity in the social domain. For him the way a person musicks, or listens to and participates in the construction of music’s meaning, and the way a person shares that way of listening, form part of music’s meaning, as a point of identification and interaction with others, and a part of that person’s identity and meaning to other listeners. A person identifies as someone who likes/identifies with this type of music, as someone who does not like/identify with that type of music. These affiliations and the judgements that they

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18 An ethnographic research methodology developed by anthropologist Clifford Geertz, also used in sociology and ethnomusicology (Geertz, 1973).
inform shape how a person listens and what they may listen to, affect how a person is perceived by others, make them part of social groups who share cultural values relating to certain kinds of sounds, and exclude them from others.

Small’s exploration of the act of listening to music as a process that constructs music’s meaning, and that is socially situated and constructed, invites readers to engage critically with their own acts of listening to music. It also invites them to critically reflect on their agency in the construction of music’s meaning and existence, and the effect of their acts of listening on their status as social agents.

For a sonic artwork to critique listening in the same way that Small does in *Musicking*, it would have to illustrate to its listeners their agency in constructing music or other meaningful sound in the act of listening to it, and the social shaping and implications of their acts of listening.

**Chion: listening and looking**

In *Audio-vision: sound on screen* (1994), Michel Chion discusses the mutual influence of the acts of listening and looking on one another, in particular in the context of experiencing cinema. The main objective of his argument is to challenge the dominant view that cinema is a visual medium with the auditory as an added accompaniment, and redirect critical discourse towards a model where the visual and the auditory are considered interacting and interdependent phenomena, perceived and theorised through a hybrid sense of audio-vision.

Chion’s argument introduces several new ideas to the cinematic discourse, built on a theory of three modes of listening pertinent to the cinema and his concept of audio-vision. These are: *causal listening* – which gathers information on the cause or source of a sound; *semantic listening* – which interprets meaning from a semantic system e.g. language or Morse code; and *reduced listening* – which is concerned with the traits of sound itself.19 In his model, listeners engage in these modes one at a time or in combination, actively or passively.

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19 Following the acousmatic or reduced listening of Schaeffer
Adapting the economic concept of added value together with his model of listening, Chion devises the concept of synchresis to describe a family of audio-visual experiences that exploit the affective possibilities of combining vision with listening’s various modes. Synchresis is a perceptual phenomenon whereby a constructed synchronisation of sound and vision are able to synthesize an experiential event with a meaning in excess of the sum of its parts. Through synchresis, a viewer/listener believes they have observed an event occurring due to the combination of what they have seen and heard, without the filmmaker having had to literally document the real sight and sound of that event. Synchresis forms the functional basis of Foley art; whereby listeners experience the synchronisation of an image and an evocative sound as meaningful often regardless of the realism of the chosen sound. Synchresis also forms the basis of many cinematic illusions, such as those of having seen an explosion or an act of violence take place, through montage of images of flying objects, gestures, bloodied faces, etc. and playback of sounds of objects impacting on one another, and weapons being used.

Chion goes on to discuss the possibilities for emotive and conceptual counterpoint and harmony between the visual and auditory, and the effects of empathetic – matching in rhythm, tone, and phrasing – and anempathetic – contrasting in rhythm, tone, and phrasing – combinations of vision and sound, in particular musical sound on the experience of meaning. He also suggests an analytical method for describing a film’s dominant tendencies in constructing relationships between sound and vision, and how these produce meaning. He devises the looking/listening techniques of masking – repeatedly experiencing the visual and auditory components of a film together, and in isolation from each other; and forced marriage – imposing unrelated soundtracks on viewings of the isolated visual component of a film.

Chion’s critique of the relationship between auditory and visual perception, his description of synchresis, and his method for analysing cinema using masking and forced marriage, invites listeners to critically engage with their own acts of listening and looking.

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20 E.g., the use of coconut shells hit together to represent the sound of horses’ hooves. In addition, many combinations of sound and image found in cartoons, which are often obviously mismatched, but to meaningful and comical effect.
their influence on one another, and the meanings they produce in combination. The presentation of his model of three modes of causal, semantic, and reduced listening also implicitly encourages listeners to critically engage with the objectives and structure of their acts of listening, the judgements implicit in them, and the various kinds of production of meaning that can result from their passive or active, and solitary or combined application.

For a sonic artwork to critique listening in the same way Chion does in *Audio-vision* would require that it demonstrate to its listeners the mutual influence of listening and other perceptual modes on one another, the additional and illusory meanings that can be produced through their combination, and the differences and relationships between distinct modes of listening.

**Ethnomusicology: listening to music, other cultures**

Before I return to the production of sonic artworks, and artists’ critical engagement with listening, I will discuss ethnomusicology, a discipline wholly concerned with observing how music, its production, and the act of listening to it varies between cultural groups. Ethnomusicologists undertake their research through fieldwork, often participating in, but primarily observing a given musical culture through music transcription, textual description, and audio and video recording. Records of these observations and experiences are analysed to produce descriptions of the conception, structure, meaning, motivation, and social significance of music in a given social and cultural context (Kunst, 1969, Reck and Reck, 1997, Howes, 2005, Barz and Cooley, 2008, Post, 2011).

Ethnomusicology studies tend to cluster around groups of people whose overall culture, and musical culture differs markedly from that of the globalised West.21 These studies are often by the same author or group of authors as they develop a relationship with a given community or cultural group over time. For example, there are clusters of studies that focus on the Inuit people of the Arctic regions (Beaudry, 1978, 1988, Nattiez, 1982, 1983a, 1983b), on the Temiar people of Malaysia (Roseman, 1984, 1987, 1990, 2000a,

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21 Early in its history, scholars described ethnomusicology as a comparative musicology that studied “primitive” musical cultures, in comparison to “civilized” ones (Kunst, 1969).
2000b), on the Suya people of Brazil (Seeger, 1979, 1980, 1991), and on the Kaluli people of Papua New Guinea (Feld, 1981, 1984, 1988, 1992, 1994). Within these studies, as well as descriptions of the particularities of traditions and techniques of producing and performing music, there are also descriptions of novel conceptions of the role of listeners and the relationship between listeners and performers (Nattiez, 1982, Seeger, 1979, 1980, Roseman, 1984); of the meanings that can be inferred from music through listening (Feld, 1984, 1996); as well as the ethnomusicologist’s role as a listener and the construction of listening experiences through making recordings of the participant groups and their music (Feld, 1988, 1992).

Recently there has been a turn by some researchers towards also scrutinising Western musical culture through the lens of ethnomusicology, and certain specialised kinds of musical listening experiences peculiar to it. These studies focus on subjects such as: people who identify as music enthusiasts or collectors of recorded music (Hennion, 2001), the phenomenon of Muzak and the experience of listening to it (Radano, 1989, Sterne, 2006), and the social and cultural implications of listening to recorded music (Day, 2000, Picker, 2003, Goodman, 2010), in particular in the context of portable formats such as in the use of a Walkman or iPod (Bull, 2006, Rasmussen, 2008, Bergh and Denora, 2009, Morton, 2004, Hosokawa, 1984).

Ethnomusicology’s investigation and depiction of the nature and meaning of the experiences of making and listening to music across numerous cultural groups, implicitly invites its readers to engage critically with their own experiences of making and listening to music. In particular it encourages comparison of the culturally contextualising factors that shape its readers’ acts of listening to music with those of the cultures and cultural forms presented. Ethnomusicologists do produce recordings and therefore structured experiences of listening, and these may implicitly encourage their listeners to engage critically with musical listening along similar lines. However, these recordings’ critiques of listening depend on reading, as much of ethnomusicology’s ability to engage critically with listening resides its conveying cultures’ ways of associating meaning with music; this is not conveyable through recordings of music alone, and requires contextualising text.

For a sonic artwork to critique listening in the same way that ethnomusicology researchers do with their writing on other cultures and accompanying field recordings, it
would need to present listeners with an alternative version of the experience of listening, with an accompanying set of culturally contextualising values, relationships, and behaviours, against which to compare their own.

**Listening and sonic art**

So far, because the majority of critical commentary on listening exists in the written realm, the literature reviewed has consisted of written texts. I have discussed how these texts encourage their readers to critically engage with their own acts of listening through arguments communicated through language and the act of reading. I have also speculated on what a sonic artwork would have to do to translate these arguments put forward through language and text, into the realm of an artwork that is to be experienced through listening rather than reading, and that need not necessarily communicate its argument through language.

In the following section, I discuss the ways in which sonic artists have engaged critically with listening – implicitly and overtly – through their artworks and their written commentary on their art, and I discuss the ability of these artworks to spur critical reflection on listening by listeners. Given its pivotal role in the development of current ideas around what aesthetically organised sound can be, and the relationship of listening to it, I begin with an overview of the development of 20th century Western art music and its many technical and stylistic innovations. I argue that each of these innovations constitutes an implicit challenge to the existing conception of what music is, and of what the act of listening to music is, often independent of the artists’ interest in listening itself.

**Innovation in music as critique of the act of listening to music**

A cursory reading of one of the histories of modern Western art music’s development – such as Cope (2001) or Griffiths (2010) – will show that the idea of what music is has undergone many dramatic changes since the beginning of the 20th century. Through the introduction and dissemination of new techniques and styles of composition, artists have repeatedly questioned and revised pre-existing ideas of what constitutes music, each innovation in effect mounting a critical argument as to what constitutes valid art within the concept of music.
As artists have questioned and revised the concept of music, likewise listeners have had to revise their understanding of it, and of what they should listen for, in order for newer music to remain intelligible to them. Listeners have had to mirror the critique of pre-existing notions of music implicit in each musical innovation: in a critique of the act of listening to music, questioning and revising their understanding of how to recognise and appreciate music. As Small might have put it, with each innovation listeners have had to revise the act of listening that allows music to exist for them (1998).

The history of innovation in modern Western art music is neatly encapsulated in Cope’s *New directions in music* (2001), and Griffiths’ *Modern music: a concise history from Debussy to Boulez* (1985) and *Modern music and after* (2010). These are also among the more commonly used texts for teaching Western art music’s development as an art form, and as such may be considered as representing the current consensus view of its history. In the table that follows, I have condensed the chronology of innovations presented in the aforementioned texts, and interpreted each innovation in terms of the implied challenge it presents to listeners’ understanding of the act of listening to music. Artist intent – whether the artist was interested in listening or not – is taken as a secondary consideration in these interpretations; my interest in these innovations is primarily in terms of what they demand of listeners.

In the table, for each innovation I give the year of its earliest appearance as given in the aforementioned texts, a brief description of what the innovation is or the name most commonly ascribed to it, a work or works that exemplify that innovation, and the way in which it demands critical engagement with the act of listening to music. Some innovations appear in the table more than once; this is because I have interpreted them as challenging listeners in more than one way. The ways in which the innovations demand critical engagement with the act of listening to music are also colour coded, in order to illustrate better their recurrence across various innovations, and shifts in their prevalence relative to one another over time.
### Table 1: Chronology of innovations in Western art music

<table>
<thead>
<tr>
<th>Year</th>
<th>Innovation</th>
<th>Example</th>
<th>How it demands critical engagement with the act of listening to music</th>
</tr>
</thead>
<tbody>
<tr>
<td>1911</td>
<td>The use of material or mannerism appropriated from folk and popular song</td>
<td>Duke Bluebeard's castle (Bartok, 1911), Three Places in New England (Ives, ca. 1903-14), La Creation du Monde (Milhaud, ca. 1922-23)</td>
<td>By presenting an alternative set of sounds listenable as music</td>
</tr>
<tr>
<td>1912</td>
<td>The use of pitch clusters exclusively</td>
<td>The tides of Mananaun (Cowell, 1912)</td>
<td>By presenting an alternative way of listening to pitch relationships</td>
</tr>
<tr>
<td>1912</td>
<td>The use of free atonality</td>
<td>Pierre Lunaire (Schoenberg, 1912), Wozzeck (Berg, ca. 1917-22)</td>
<td>By presenting an alternative set of sounds listenable as music</td>
</tr>
<tr>
<td>1912</td>
<td>The use of &quot;music theatre&quot;</td>
<td>Pierre Lunaire (Schoenberg, 1912), Eight Songs for a Mad King (Davies, 1969), Revelation in the Courthouse Park (Partch, 1960), The delusion of the fury (Partch, ca. 1965-66)</td>
<td>By presenting an alternative way of relating to a performer</td>
</tr>
<tr>
<td>1913</td>
<td>The use of rhythm as primary organising principle</td>
<td>The Rite of Spring (Stravinsky, 1913)</td>
<td>By presenting an alternative way of listening to the hierarchy of musical parameters</td>
</tr>
<tr>
<td>1914</td>
<td>The use of free or &quot;stream of consciousness&quot; form</td>
<td>Jeux (Debussy, 1914)</td>
<td>By presenting an alternative way of listening to the structure of music</td>
</tr>
<tr>
<td>1917</td>
<td>The use of microtonality</td>
<td>Suite for string orchestra (Alois Haba, 1917)</td>
<td>By presenting an alternative set of sounds listenable as music</td>
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<td>The use of microtonality</td>
<td>Suite for string orchestra (Alois Haba, 1917)</td>
<td>By presenting an alternative way of listening to pitch relationships</td>
</tr>
<tr>
<td>Ca. 1920-23</td>
<td>The use of serial technique</td>
<td>Five piano pieces (Schoenberg, ca. 1920-23), Serenade for septet (Schoenberg, 1923), Piano suite (Schoenberg, ca. 1921-23)</td>
<td>By presenting an alternative way of listening to pitch relationships</td>
</tr>
<tr>
<td>Ca. 1921</td>
<td>The use of noise music</td>
<td>Corale (Russolo, ca. 1921), Serenata (Russolo, ca. 1921)</td>
<td>By presenting an alternative set of sounds listenable as music</td>
</tr>
<tr>
<td>1922</td>
<td>The use of materials, techniques, mannerisms appropriated from the classical period (neo classicalism)</td>
<td>Mavra (Stravinsky, 1922), Oedipus Rex (Stravinsky, 1927)</td>
<td>By presenting an alternative way of listening to musical idioms from history</td>
</tr>
<tr>
<td>1922</td>
<td>The use of materials, techniques, mannerisms appropriated from the classical period (neo classicalism)</td>
<td>Mavra (Stravinsky, 1922), Oedipus Rex (Stravinsky, 1927)</td>
<td>By presenting an alternative way of listening to the relationships between styles of music</td>
</tr>
<tr>
<td>1923</td>
<td>The use of extended instrumental techniques</td>
<td>Aeolian harp (Cowell, 1923), Sequenza IX a (Berio, 1980)</td>
<td>By presenting an alternative set of sounds listenable as music</td>
</tr>
<tr>
<td>1923</td>
<td>The use of extended instrumental techniques</td>
<td>Aeolian harp (Cowell, 1923), Sequenza IX a (Berio, 1980)</td>
<td>By presenting an alternative way of listening to familiar sound producing objects</td>
</tr>
<tr>
<td>Ca. 1929-31</td>
<td>The use of percussion instruments exclusively</td>
<td>Ionisation (Varese, ca. 1929-31)</td>
<td>By presenting an alternative set of sounds listenable as music</td>
</tr>
<tr>
<td>Ca. 1929-31</td>
<td>The use of percussion instruments exclusively</td>
<td>Ionisation (Varese, ca. 1929-31)</td>
<td>By presenting an alternative way of listening to the hierarchy of musical parameters</td>
</tr>
<tr>
<td>Ca. 1931-33</td>
<td>The use of just intonation</td>
<td>Seventeen lyrics by Li Po (Partch, ca. 1931-33), Revelation in the Courthouse Park (Partch, 1960), The delusion of the fury (Partch, ca. 1965-66)</td>
<td>By presenting an alternative set of sounds listenable as music</td>
</tr>
<tr>
<td>Ca. 1931-33</td>
<td>The use of just intonation</td>
<td>Seventeen lyrics by Li Po (Partch, ca. 1931-33), Revelation in the Courthouse Park (Partch, 1960), The delusion of the fury (Partch, ca. 1965-66)</td>
<td>By presenting an alternative way of listening to pitch relationships</td>
</tr>
<tr>
<td>Year</td>
<td>Innovation</td>
<td>Example</td>
<td>How it demands critical engagement with the act of listening to music</td>
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<tr>
<td>----------</td>
<td>----------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Ca. 1932-33</td>
<td>The use of materials appropriated from other cultures</td>
<td>L’Ascension (Messiaen, ca. 1932-33), La Koro Sutro (Harrison, 1972)</td>
<td>By presenting an alternative set of sounds listenable as music</td>
</tr>
<tr>
<td>1934</td>
<td>The use of electronic instruments</td>
<td>Ecuatorial (Varese, 1934)</td>
<td>By presenting an alternative set of sounds listenable as music</td>
</tr>
<tr>
<td>1935</td>
<td>The use of open or mobile form</td>
<td>Mosaic Quartet (Cowell, 1935), 25 pages (Brown, 1953)</td>
<td>By presenting an alternative way of listening to the structure of music</td>
</tr>
<tr>
<td>1939</td>
<td>The use of turntables in performance</td>
<td>Imaginary landscape No. 1 (Cage, 1939)</td>
<td>By presenting an alternative set of sounds listenable as music</td>
</tr>
<tr>
<td>1939</td>
<td>The use of turntables in performance</td>
<td>Imaginary landscape No. 1 (Cage, 1939)</td>
<td>By presenting an alternative way of listening to familiar sound producing objects</td>
</tr>
<tr>
<td>1941</td>
<td>The use of modes rather than keys as a basis for pitch organisation</td>
<td>Quartet for the End of Time (Messiaen, 1941)</td>
<td>By presenting an alternative way of listening to pitch relationships</td>
</tr>
<tr>
<td>Ca. 1946-48</td>
<td>The use of modified traditional instruments (e.g. prepared piano)</td>
<td>Sonatas and Interludes for prepared piano (Cage, ca. 1946-48)</td>
<td>By presenting an alternative set of sounds listenable as music</td>
</tr>
<tr>
<td>Ca. 1946-48</td>
<td>The use of modified traditional instruments (e.g. prepared piano)</td>
<td>Sonatas and Interludes for prepared piano (Cage, ca. 1946-48)</td>
<td>By presenting an alternative way of listening to familiar sound producing objects</td>
</tr>
<tr>
<td>1947</td>
<td>The use of &quot;total serialism&quot;</td>
<td>Structures 1a (Boulez, 1952), Three Compositions for Piano (Babbitt, 1947), Composition for Viola and Piano (Babbitt, 1950)</td>
<td>By presenting an alternative way of listening to pitch relationships</td>
</tr>
<tr>
<td>1947</td>
<td>The use of &quot;total serialism&quot;</td>
<td>Structures 1a (Boulez, 1952), Three Compositions for Piano (Babbitt, 1947), Composition for Viola and Piano (Babbitt, 1950)</td>
<td>By presenting an alternative way of listening to the hierarchy of musical parameters</td>
</tr>
<tr>
<td>Ca. 1948-69</td>
<td>The use of polyphony of tempos</td>
<td>1st String Quartet (Carter, 1951), Selected studies for player piano (Nancarrow, ca. 1948-69)</td>
<td>By presenting an alternative way of listening to the behaviour of sounds as music</td>
</tr>
<tr>
<td>1950</td>
<td>The use of musique concrete</td>
<td>Symphonie pour un homme seul (Schaeffer, 1950)</td>
<td>By presenting an alternative way of listening to familiar sound producing objects</td>
</tr>
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<td>1950</td>
<td>The use of musique concrete</td>
<td>Symphonie pour un homme seul (Schaeffer, 1950)</td>
<td>By presenting an alternative way of listening to familiar sound producing objects</td>
</tr>
<tr>
<td>1950</td>
<td>The use of chance in the determination of material at a phrase level in performance (semi-determinate notation)</td>
<td>Projection 1 (Feldman, 1950)</td>
<td>By presenting an alternative way of listening to the behaviour of sounds as music</td>
</tr>
<tr>
<td>1951</td>
<td>The use of chance in the preparation of a score</td>
<td>Music of changes (Cage, 1951)</td>
<td>By presenting an alternative way of listening to pitch relationships</td>
</tr>
<tr>
<td>1951</td>
<td>The use of chance in the preparation of a score</td>
<td>Music of changes (Cage, 1951)</td>
<td>By presenting an alternative way of listening to the hierarchy of musical parameters</td>
</tr>
<tr>
<td>1952</td>
<td>The use of chance in selecting sounds, their behaviour and relationships</td>
<td>4'33&quot; (Cage, 1952)</td>
<td>By presenting an alternative set of sounds listenable as music</td>
</tr>
<tr>
<td>1952</td>
<td>The use of chance in selecting sounds, their behaviour and relationships</td>
<td>4'33&quot; (Cage, 1952)</td>
<td>By presenting an alternative way of listening to familiar sound producing objects</td>
</tr>
<tr>
<td>1952</td>
<td>The use of graphic scores</td>
<td>December 1952 (Brown, 1952)</td>
<td>By presenting an alternative way of listening to the behaviour of sounds as music</td>
</tr>
<tr>
<td>1953</td>
<td>The use of sounds transcribed from the natural world (e.g. birdsong)</td>
<td>Reveil des oiseaux (Messiaen, 1953), Catalogue d'oiseaux (Messiaen, ca. 1956-58)</td>
<td>By presenting an alternative set of sounds listenable as music</td>
</tr>
<tr>
<td>Year</td>
<td>Innovation</td>
<td>Example</td>
<td>How it demands critical engagement with the act of listening to music</td>
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<td>-----------</td>
<td>------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>1953</td>
<td>The use of sounds transcribed from the natural world (e.g. birdsong)</td>
<td>Revel des oiseaux (Messiaen, 1953), Catalogue d'oiseaux (Messiaen, ca. 1956-58)</td>
<td>By presenting an alternative way of listening to familiar sound producing objects</td>
</tr>
<tr>
<td>1953</td>
<td>The use of synthesised sound</td>
<td>Studie I (Stockhausen, 1953)</td>
<td>By presenting an alternative set of sounds listenable as music</td>
</tr>
<tr>
<td>1958</td>
<td>The use of pre-recorded/edited tape</td>
<td>Poéme Electronique (Varese, 1958)</td>
<td>By presenting an alternative set of sounds listenable as music</td>
</tr>
<tr>
<td>1958</td>
<td>The use of pre-recorded/edited tape</td>
<td>Poéme Electronique (Varese, 1958)</td>
<td>By presenting an alternative way of listening to familiar sound producing objects</td>
</tr>
<tr>
<td>1958</td>
<td>The use of drone music</td>
<td>String Trio (Scelsi, 1958), Quattro pezzi (Scelsi, 1959), Music on a long thin wire (Lucier, 1977)</td>
<td>By presenting an alternative way of listening to pitch relationships</td>
</tr>
<tr>
<td>1960</td>
<td>The use of electroacoustic music</td>
<td>Kontakte (Stockhausen, 1960)</td>
<td>By presenting an alternative set of sounds listenable as music</td>
</tr>
<tr>
<td>1960</td>
<td>The use of electroacoustic music</td>
<td>Kontakte (Stockhausen, 1960)</td>
<td>By presenting an alternative way of listening to familiar sound producing objects</td>
</tr>
<tr>
<td>1960</td>
<td>The use of instruction based process music</td>
<td>Composition 1960 #5 (Young, 1960), Composition 1960 #2 (Young, 1960), I am sitting in a room (Lucier, 1969)</td>
<td>By presenting an alternative way of listening to the behaviour of sounds as music</td>
</tr>
<tr>
<td>1960</td>
<td>The use of instruction based process music</td>
<td>Composition 1960 #5 (Young, 1960), Composition 1960 #2 (Young, 1960), I am sitting in a room (Lucier, 1969)</td>
<td>By presenting an alternative set of sounds listenable as music</td>
</tr>
<tr>
<td>1961</td>
<td>The use of micropolyphony</td>
<td>Atmospheres (Ligeti, 1961)</td>
<td>By presenting an alternative way of listening to the behaviour of sounds as music</td>
</tr>
<tr>
<td>1964</td>
<td>The use of minimalist music</td>
<td>In C (Riley, 1964), It's gonna rain (Reich, 1965)</td>
<td>By presenting an alternative way of listening to the behaviour of sounds as music</td>
</tr>
<tr>
<td>1964</td>
<td>The use of stochastic music</td>
<td>Eonta (Xenakis, 1964)</td>
<td>By presenting an alternative way of listening to the behaviour of sounds as music</td>
</tr>
<tr>
<td>1964</td>
<td>The use of &quot;instrumental theatre&quot;</td>
<td>Match (Kagel, 1964), Verses for Ensembles (Birtwistle, ca. 1968-69)</td>
<td>By presenting an alternative way of relating to a performer</td>
</tr>
<tr>
<td>1964-present</td>
<td>The use of extreme duration</td>
<td>Dream House (Young, 1974), The Tortoise, His Dreams and Journeys (Young, 1964-present), The Well Tuned Piano (Young, 1964-73-81-present), Second String Quartet (Feldman, 1983)</td>
<td>By presenting an alternative way of listening to the structure of music</td>
</tr>
<tr>
<td>Ca. 1965-66</td>
<td>The use of materials, techniques, mannerisms appropriated from the renaissance/pre-renaissance</td>
<td>Taverner (Davies, 1972), Musik fur Renaissance-Instrumente (Kagel, ca. 1965-66)</td>
<td>By presenting an alternative way of listening to musical idioms from history</td>
</tr>
<tr>
<td>Ca. 1965-66</td>
<td>The use of materials, techniques, mannerisms appropriated from the renaissance/pre-renaissance</td>
<td>Taverner (Davies, 1972), Musik fur Renaissance-Instrumente (Kagel, ca. 1965-66)</td>
<td>By presenting an alternative way of listening to the relationships between styles of music</td>
</tr>
<tr>
<td>1968</td>
<td>The use of quotation from and re-contextualisation of historical works</td>
<td>Night of the Four Moons (Crumb, 1969), Sinfonia (Berio, 1968), Ludwig Van (Kagel, 1969)</td>
<td>By presenting an alternative way of listening to musical works from history</td>
</tr>
<tr>
<td>Ca. 1968-71</td>
<td>The use of political ideology as a basis for composition</td>
<td>The Great Learning (Cardew, ca. 1968-71), Coming Together (Rzewski, 1971)</td>
<td>By presenting an alternative way of listening to music in its socio-political context</td>
</tr>
</tbody>
</table>
### Literature review: How has listening been critiqued in the past?

<table>
<thead>
<tr>
<th>Year</th>
<th>Innovation</th>
<th>Example</th>
<th>How it demands critical engagement with the act of listening to music</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ca. 1969-70</td>
<td>The use of &quot;instrumental musique concrete&quot; (extended techniques + &quot;noise&quot; sounds)</td>
<td>Pression (Lachenmann, ca. 1969-70), Guero (Lachenmann, 1970)</td>
<td>By presenting an alternative set of sounds listenable as music</td>
</tr>
<tr>
<td>Ca. 1972-73</td>
<td>The use of materials, techniques, mannerisms appropriated from the romantic period (neo romanticism)</td>
<td>Sektor IV aus Morphonie (Rihm, ca. 1972-73)</td>
<td>By presenting an alternative way of listening to musical idioms from history</td>
</tr>
<tr>
<td>Ca. 1972-73</td>
<td>The use of materials, techniques, mannerisms appropriated from the romantic period (neo romanticism)</td>
<td>Sektor IV aus Morphonie (Rihm, ca. 1972-73)</td>
<td>By presenting an alternative way of listening to the relationships between styles of music</td>
</tr>
<tr>
<td>1973</td>
<td>The use of &quot;new complexity&quot;</td>
<td>Unity Capsule (Ferneyhough, 1973), Time and Motion Study II (Ferneyhough, ca. 1973-76)</td>
<td>By presenting an alternative way of relating to a performer</td>
</tr>
<tr>
<td>1989</td>
<td>The use of jump cut technique</td>
<td>Torture Garden (Zorn, 1989)</td>
<td>By presenting an alternative way of listening to the structure of music</td>
</tr>
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<td>1989</td>
<td>The use of jump cut technique</td>
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</tr>
</tbody>
</table>

As can be seen, the ways in which Western art music’s innovations have demanded critical engagement with the act of listening to music – as represented in the final column – recur across innovations, some frequently. In effect, they are themes that connect the various innovations, into groups that share a way of critiquing and encouraging re-evaluation of the act of listening to music:

- By presenting an alternative set of sounds listenable as music;
- By presenting an alternative way of listening to pitch relationships;
- By presenting an alternative way of relating to a performer;
- By presenting an alternative way of listening to the hierarchy of musical parameters;
- By presenting an alternative way of listening to the structure of music;
- By presenting an alternative way of listening to musical idioms from history;
- By presenting an alternative way of listening to the relationships between styles of music;
- By presenting an alternative way of listening to familiar sound producing objects;
- By presenting an alternative way of listening to the behaviour of sounds as music;
- By presenting an alternative way of listening to musical works from history;
By presenting an alternative way of listening to music in its socio-political context; and
By presenting an alternative way of listening to the spectral quality of musical sounds.

To illustrate, where innovations in music critique the act of listening to music:

By presenting an alternative set of sounds listenable as music (represented by the colour ■), for instance:

- Russolo’s introduction of noise music, exemplified in Corale (ca.1921a), or Serenata (ca.1921b);
- Cowell’s introduction of pitch clusters, exemplified in The Tides of Manaunaun (Cowell, 1912/1960);

Listeners are implicitly required to engage critically with the way in which they listen to music, in order to assimilate the new sounds they are experiencing into those that they understand may be listened to as music. This occurs independently of any apparent intent by these artists to specifically affect the way in which audiences listened, with the possible exception of Russolo, who took somewhat of an interest in listening as part of the Futurist project of promoting noise (Kirby, 1971, Russolo, 1986, Stockhausen, 1989, Cowell, 1930).

By presenting an alternative way of listening to pitch relationships (represented by the colour ■), for example:

- Schoenberg’s introduction of serial technique, exemplified in the first of Five piano pieces (ca.1920-23/1951), or Serenade (1923/1924);
- Babbitt’s introduction of total serialism, exemplified in Three compositions for piano (1947/1957), or Composition for viola and piano (1950/1972);
- Messiaen’s return to the use of modes rather than keys as a basis for pitch organisation, exemplified in Quartet for the end of time (1941/1942).

Listeners are implicitly required to critically evaluate how they listen to music, in order to adapt to the new system of relating pitches to one another, and suppress their expectations of the familiar syntactic and hierarchic relationships of music composed according to functional harmony. With these artists, this occurs independently of any
apparent intent to specifically affect the way in which their audiences listened (Messiaen, 1956, Babbitt, 1999, Schoenberg, 1984).

By presenting an alternative way of relating to a performer (represented by the colour □), such as:

- The introduction of “music theatre”, exemplified in Davies’ *Eight songs for a mad king* (1969/1971), or Partch’s *The delusion of the fury* (ca.1965–66/1971) and *Revelations in the courthouse park* (1960/1989);

Listeners are required to engage critically with how they listen to music, in order to integrate the instrumentalist’s expanded performative role and listeners’ relationship to it. Again, in these examples this occurs independently of any apparent intent to specifically affect the way in which their audiences listened with these works; Ferneyhough does state an interest in how people listen in some of his writings, but with no reference to affecting it in any specific way with these pieces (Partch, 1974, Ferneyhough and Boros, 1990, Ferneyhough, 1993, 1994, 1995).

By presenting an alternative way of listening to the hierarchy of musical parameters (represented by the colour □), as in:

- The introduction of total serialism, exemplified in Boulez’s *Structures Ia* (1952/1955);

Listeners are required to critically reflect on the way they listen to music, in order to adjust to the flattening of the hierarchy of musical parameters and the dethroning of pitch as the primary focus of musical development. This occurs independently of any apparent intent to specifically affect the way in which their audiences listened in these examples. Cage did state an interest in affecting musical listening, but with no specific intent towards it with *Music of changes* (Cage, 1961, Boulez, 1986, Di Pietro and Boulez, 2001).22

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22 More discussion of Cage and the effect of his idea of sound-in-itself on the act of listening to music follows in its own section below.
By presenting an alternative way of listening to the structure of music (represented by the colour □), such as:

- The introduction of the use of extreme duration, exemplified in Feldman’s *String quartet no. 2* (1983/1988), and Young’s *The tortoise, his dreams and journeys* (1964-present);

Listeners are required to engage critically with how they listen to music, in order to assimilate new conceptions of how music may be structured. In these examples: as a marathon that tests endurance and perception of time, and as a permutation of a set of structural elements.\(^{23}\) Again, this occurs independently of any apparent intent to specifically affect the way in which audiences listened on the part of Cowell, Feldman, and Brown. Young however does state an interest in listening and listener experience in his writings, and does discuss listener experience and agency in relation to his works of extreme duration (Cowell, 1930, Young, 1963, Feldman et al., 2001, Young and Zazeela, 2004, Brown, 2011).

By presenting an alternative way of listening to musical idioms from history (represented by the colour □), for example:

- The introduction of the use of materials, techniques, mannerisms appropriated from the classical period – or “neo-classicism” – exemplified in Stravinsky’s *Mavra* (1922/1925), or *Oedipus Rex* (1927/1950).

Listeners are required to critically evaluate the way in which they listen to music, in order to adapt to the new meanings given to old materials, techniques, and mannerisms through their re-contextualisation and reworking. Again, this occurs independently of any apparent intent to specifically affect the way in which his audience listened (Stravinsky and Craft, 2002).

By presenting an alternative way of listening to the relationships between styles of music (represented by the colour □), as in:

\(^{23}\) Although the latter requires prior knowledge of the score

Listeners are required to reflect on how they listen to music, in order to assimilate the new meanings wrought from the juxtaposition of and arising relationships between existing styles of music. This occurs independently of any apparent intent to specifically affect the way in which his audience listens (Bailey, 1993, Zorn, 1999).

*By presenting an alternative way of listening to familiar sound producing objects* (represented by the colour ■), for instance:

- The introduction of extended instrumental techniques, exemplified in Cowell’s *Aeolian harp* (1923/1960), and Berio’s *Sequenza IXa* (1980);
- The introduction of repurposing recorded found sounds, exemplified in Varese’s *Poeme electronique* (1958/1998), and Schaeffer’s *Symphonie pour un homme seul* (1950/1972).

Listeners are required to engage critically with the way they listen to music, in order to adjust to the unfamiliar use of familiar musical sound producing objects, and the musical use of non-musical sound producing objects. This occurs independently of any apparent intent to specifically affect the way in which audiences listened in the case of Cowell; Varese and Schaeffer though both stated an interest in affecting or reinventing musical listening (Cowell, 1930, Schaeffer, 2012, Bernard, 1987).

*By presenting an alternative way of listening to the behaviour of sounds as music* (represented by the colour ■), for example:

- The introduction of stochastic music, exemplified in Xenakis’ *Eonta* (1964/1967);
- The introduction of minimalist, repetitive music, exemplified in Reich’s *It’s gonna rain* (1965/1997), and Lucier’s *I am sitting in a room* (1969/2012).

Listeners are required to critically evaluate the way in which they listen to music, in order to integrate a new conception of the behaviour of sounds as music. In these examples: as elements in collective sound gestures of constrained randomness; and as repeating elements subject to very slow rates of change that occur as shifts in the attention of the

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24 In terms of its consideration as music, the work of Schaeffer is a special case. As idealised by Schaeffer its apprehension goes beyond the act of listening to music with his theorisation of acousmatic listening. I address this further in the section on Schaeffer and acousmatic listening below.
listener as much as the objectively sensed sound. In their writings, Lucier expresses an
interest in affecting listeners’ experience and understanding of sound, Reich expresses an
awareness of the experienced artwork as a product of listening, and an interest in
transparency of artist intent and developmental process to listeners, and Xenakis also
expresses an interest in the thought process involved in the experience of listening to

By presenting an alternative way of listening to musical works from history (represented by the
colour ■), such as:

- The introduction of liberal quotation from and re-contextualisation of historical
  works, exemplified in Berio’s Sinfonia (1968/1972), or Kagel’s Ludwig Van

Listeners are required to reflect on how they listen to music, in order to assimilate the
new meanings given to old musical works through their re-contextualisation and
reworking. This occurs independently of any apparent intent to specifically affect the way
in which their audiences listened (Heile, 2006, Berio, 2006).

By presenting an alternative way of listening to music in its socio-political context (represented by the
colour ■), as in:

- The introduction of political ideology as a basis for composition, exemplified in
  Cardew’s The great learning (ca.1968-71/1984), and Rzewski’s Coming together (1971).

Listeners are required to re-evaluate the way in which they listen to music, in order to
assimilate the view of the musical work as a medium of socio-political expression and
struggle. This also occurs independently of any apparent intent to specifically affect the
way in which their audiences listened (Cardew, 1972, 1974, Rzewski et al., 2007).

By presenting an alternative way of listening to the spectral quality of musical sounds (represented by
the colour ■), for instance:

- The introduction of spectral music, exemplified in Grisey’s series Les espaces
  1985/2008).

Listeners are required to engage critically with how they listen to music, in order to adjust
to the perspective that all musical sounds are at the same time timbral and harmonic
structures. Grisey did take an interest in sound perception, mostly in the vein of the psychoacoustic understanding of its functional limits, and his work demonstrates phenomena relating to human perception of pitch and harmony, and memory and the perception of sonic gestalts (Grisey and Welbourn, 1987, Grisey and Joshua, 2000, Grisey and Réby, 2008).

Looking at the table again, a shift in the distribution of themes, and their relative dominance over time is also observable. Early in the 20th century, innovation is dominated by movements that critique the act of listening to music by presenting alternative sets of sounds listenable as music, and by presenting alternative ways of listening to pitch relationships. In later decades, innovation is dominated by movements that do so by presenting alternative ways of listening to the behaviour of sounds as music, the relationships between styles of music, the relationship between listener and performer, and the fundamental nature of musical sounds. The emphasis of musical innovation appears to have moved: from a concern with problems of sound choice and organisation, to more profound problems that question what music is and the conditions that allow it to exist; as it appears artists have followed a path of deepening critical engagement with the form, and implicitly, the act of listening to it.

Western art music’s many technical and stylistic innovations demand that listeners engage critically with the act of listening to music in a number of ways, in order for music to remain intelligible to them and their way of listening to it, and to reconcile the old with the new. Ancillary texts such as concert programs, and composers’ books and essays often aid listeners’ introduction to these innovations, therefore, a given listener may experience the demands these innovations make of listening as more or less overt, depending on the physical availability of these texts and listeners’ engagement with them. However, given the lack of explicitly stated intent in the composers’ writings to make a critique of listening directly tied to any of the works mentioned above, it seems likely that performance programs or essays accompanying their presentation would be similar, and that the innovations’ demands for critical reflection would most often be experienced implicitly.

The innovations encourage engagement with questions of:
- What sounds constitute music;
- How pitch should be organised;
- What constitutes listeners’ relationship to performers;
- What the hierarchy of musical parameters should be;
- What the structure of music should be;
- How to relate to historical music and historical idioms;
- How to listen to the relationships between genres;
- How to listen to various kinds of sound producing objects;
- How to listen to the behaviour of sounds;
- How to politically contextualize music’s meaning; and
- How to listen to the spectral quality of sounds.

While highly effective within music, due to their close ties with musical parameters, many of these critiques are not directly transferrable to other forms of listening, or to listening in general.

For a sonic artwork to critique the act of listening more broadly in the way that these artworks critique the act of listening to music, it would need to present listeners with an alternative version of a familiar system of sound organisation, which violates and incrementally builds on the assumptions by which listeners understand that system. This could be achieved through adoption of new sounds and sound producing objects into that system, redefinition of subsystems for organising parameters of sounds, redefinition of the hierarchy of sounds’ parameters, redefinition of relationships between sound making and listening agents, redefinition of systems of sound organisation over time, or integration of concepts external to the system.

**Other aesthetic listenings**

Alongside 20\textsuperscript{th} century art music’s numerous innovations and re-evaluations, other art forms that made use of sound such as cinema, literature, radio, and theatre were also undergoing similar rapid change in terms of what they considered listenable, and listeners’ relationship to sound in listening to them. The foregrounding of sound and of listening that occurred through this period of rapid change set the stage for the establishment of
new forms of aesthetic sound organisation (Kahn, 1999). Most of these branch primarily from music, but break from it in some way, and establish new sets of priorities as to what should be listened to, and in most cases self-consciously establish new models of aesthetically directed listening.

Cage: sound-in-itself

John Cage’s art and ideas – many of which are collected in *Silence: lectures and writings* (1961) – have been highly influential on sonic artists and emerging sonic forms over the past 50 or so years. Of particular influence has been his concept of the appreciation of “sound-in-itself” which, through its declaration of the inherent value of all sounds, serves as something of a clean slate for sonic artists seeking new ground (Cage, 1961, Kim-Cohen, 2009).

The appreciation of sound-in-itself also constitutes Cage’s most significant contribution to the exploration and theorisation of listening. With it he takes music’s various steps towards the inclusion of new sounds into those listenable as music to their ultimate logical conclusion: to make music encompass all possible sound. He critiques the exclusions that result from musical listening’s choices and judgements, and valorises the aesthetic worth of all sounds, judging them all worthy of musical attention.

Cage’s concept of sound-in-itself liberates sounds, however it limits listening. By his reasoning, in order to appreciate sounds’ quality, sound-in-itself transforms them into music; therefore, it transforms the act of listening to them into musical listening. Should the ultimate end-point of sound-in-itself be reached – the transformation of the entire sonic world into music in the perception of the listener – all listening would be transformed into musical listening, and any other way of experiencing sound would be invalidated.

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25 Although in his characteristically ambiguous way did discuss the possibilities of listening: “new music: new listening”; “the central points where fusion occurs are many: the ears of the listeners”; “Composing’s one thing, performing’s another, listening’s a third. What can they have to do with one another?”; “if I get away from people, do I still have to listen to something?”; and make suggestions as to how his audience should listen: “sounds, when allowed to be themselves, do not require that those who hear them do so unfeelingly. The opposite is what is meant by response ability” (1961).
Cage’s formulation of the appreciation of sound-in-itself overtly challenges readers to engage critically with their judgements of sounds’ artistic or aesthetic validity within the act of listening to music. In its infinite expansion of musical listening, it also implicitly challenges readers to engage critically with all other forms of listening.

For a sonic artwork to critique listening in the same way as Cage’s concept of the appreciation of sound-in-itself, it would need to lead listeners to embrace all sounds as equally valid objects of attention, and to interpret all sounds from the perspective of one value system.

Schaeffer: acousmatic listening

Pierre Schaeffer is also a prominent figure associated with drawing the broader sonic world into music, and more specifically the assimilation of recorded ‘found’ sounds into music. Through the manner in which Schaeffer listened to the sounds he recorded went beyond the strictly musical as he developed the concept of *acousmatic listening*.

In *Acousmatics* (2004), Schaeffer advocates a reimagining of Pythagorean *acousmatic listening* in which sound is divorced from its source. Originally, acousmatic listening was part of an ancient Greek pedagogical technique, whereby a teacher would place a screen between himself and his students, to isolate the sound of his voice from the sight of his body, in order to focus students’ attention on the content of the words spoken over and above the person delivering them. In Schaeffer’s renovation of the concept, he transplants acousmatic listening from the pedagogic to the musical and technological realms, and broadens its division of sound and source.

Schaeffer takes the physical separation of sound from its original source and context that occurs in recording, and uses it to promote focus on the content of the sound recorded. He endeavours to make this separation total, and to use it to ignore the source of sound altogether. He asks listeners to aesthetically judge the immanent – internal to, inherent – qualities of the sound at hand only, and to deny any assignment of identity to it.

Schaeffer’s acousmatic listening makes any recordable sound of equal potential use in an aesthetic construction. He calls these recorded sounds – apprehended without judgement
of identity – *objets sonores*, and these, perceived through his version of acousmatic listening, form the basis for *musique concrete*: the discipline of aesthetic sound assembly based on collage of sound stripped of identity and context (Schaeffer, 2012).

Schaeffer’s formulation of acousmatic listening, together with his works of musique concrete, overtly invite readers and listeners to engage critically with the act of listening to sound aesthetically, by requiring that they learn to suspend judgement of the identity of sounds in the interest of contemplating their immanent properties. His critique of listening aesthetically is thoroughly and explicitly stated in his writings, and is implicit in his artworks, although, to fully appreciate the artworks as intended a familiarity with the theoretical framework of acousmatic listening is necessary. This is not achievable through listening to the works alone and requires reading his texts or some other form of written or verbal induction.

For a sonic artwork to critique listening in the way that Schaeffer’s concept of acousmatic listening critiques the act of listening aesthetically, it would have to lead its listeners to suspend one of listening’s fundamental aspects – for example: assigning an identity to a sound’s source – in favour of heightening its other aspects.

**Schafer: acoustic ecology**

In *The Soundscape*, R. Murray Schafer (1994) lays out the theoretical groundwork of acoustic ecology, a discipline focused on the aesthetics and ethics of the act of listening to environmental sound, and the study and preservation of the sonic environment or *soundscape* – a sonic analogue of the term landscape. As a creative practice, it is characterised by sound walks – guided walks that lead listeners through a structured experience of a soundscape, encouraging them to attend to the sounds of that environment – and field recordings of environmental sound.

The listening Schafer proposes as part of acoustic ecology encompasses the entire world of sound, analysing and judging the worth of all sounds that make up the soundscape of a given environment, and ultimately making listeners into curators, co-authors, and

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26 Translated: *sound objects*
potentially active composers of the sound of the everyday world. Schafer does not contain the role of the acoustic ecologist to the abatement of undesirable noise; rather he espouses the deliberate construction of an ideal sound world, enabled by intensive and thoughtful listening. He goes so far as to suggest that musicians, being experts in aesthetic listening and construction, be custodians of the soundscape; although he maintains the sovereignty of environmental sound and does not attempt to make all listening musical, as Cage does.

Acoustic ecology’s investigation of the experience, aesthetics, and ethics of listening to environmental sound, and its creation of aesthetic listening experiences and a theoretical framework through which to interpret them, reorient readers’ and listeners’ relationship to environmental sounds. They are overtly encouraged to engage critically with their experiences of listening to environmental sound, by requiring that they extend and intensify judgement of aesthetic worth to all sounds, and to assume responsibility for curating the soundscape. Its creative forms – sound walks and field recordings – do serve to encourage critical engagement with listeners’ judgements of aesthetic worth in their reframing of environmental sounds. However, the clearest communication of its curatorial aspect occurs through its written texts.

For a sonic artwork to critique listening in the same way that Schafer and his acoustic ecology critiques the act of listening to environmental sound, it would need to direct listeners to broaden their attention to sound, intensify their judgement of it – by aesthetic merit or other criteria – and induce them to assume more responsibility for its organisation.

Oliveros: deep listening
Pauline Oliveros’ *Deep listening: a composer’s sound practice* (2005) provides another example of an artist/theorist grappling with the idea of listening to the entirety of available sound, through the creation of a new mode of listening. For Oliveros deep listening is a searching, meditative practice through which creativity – the discovery and formation of new patterns – can occur through expansion of listening’s attentive aspect. Deep listening’s pursuit falls into the format of performance and meditation exercises, undertaken at retreats and workshops set up for learning and honing its practice.
Like Cage, Schaeffer, and Schafer, Oliveros aims to make all sounds available for aesthetic use and appreciation. Unlike them, her expansion of listening to encompass the "whole space/time continuum of sound" aims not only to include all sounds as potential objects of attention, but also to include all sounds as simultaneous objects of attention, through a suspension of judgement of sounds’ importance. Within this state, deep listening practitioners cultivate the ability to broaden their attention as much as possible, and simultaneously focus on and follow a detail or pattern within the whole of the perceived.

Oliveros’ writing and teaching on deep listening investigate the nature of listening’s attentive aspect, and sounds’ relationships to one another in the auditory field, by creating aesthetic listening experiences and a theoretical framework through which to interpret them, which reorient the listener’s perception of object and field in sound. She invites her readers and students to engage critically with their own acts of listening to sound aesthetically, and to sound in general, by requiring that they learn to suspend judgement of the importance of sounds, in order to expand their listening focus to apprehend all sounds occurring in the auditory field.

For a sonic artwork to critique listening in the same way that Oliveros does in her writing and teaching, it would need to lead its listeners to suspend judgement of sounds’ relative importance, and attend to as much of the auditory field as possible at one time.

**Wishart: on sonic art**

In *On Sonic Art* (1996), Trevor Wishart takes the position that progressive sound practices must continue to challenge the objects of listening, and question the aesthetic standards imposed on sound by the established art forms that use sound, such as music and poetry. In it, he seeks to legitimise all possible aesthetic organisation of sound, and coins the term *sonic art* to encompass the full range of aesthetic practices that do or could use sound.

In effect, what Wishart pursues in coining “sonic art” is the invention of a form of meta-aesthetic-listening, that somehow avoids the prejudices that come with acts of listening that constitute its component parts – listening to music, to musique concrete, to acoustic
ecology, etc. The concept of sonic art separates the quality of being aesthetically organised from any specific set of standards for judgement of that quality. While judgement without standards of judgement seems paradoxical, and impractical to apply, as an idea and as an idealised form of listening, Wishart’s sonic art provides the groundwork for a conceptual space within which to discuss all art forms that use sound side-by-side.

Through his concept of sonic art, Wishart’s exploration of the nature of the act of listening aesthetically implicitly invites his readers to engage critically with their own acts of listening aesthetically, by requiring that they adopt an aesthetic stance toward sound, independent of any standards of judgement.

For a sonic artwork to critique listening in the same way that Wishart critiques the act of listening aesthetically, it would have to lead its listeners to attend to sound, and judge it capable of being judged within a general category, but suspend judgement of it attached to any specific value system.  

Listening and sound art

The term sound art as presently understood is not the product or project of one author. It was coined in the 1980s and popularised in the 1990s, to refer to works produced by artists of established modes of sound organisation – experimental music, musique concrete, poetry, etc. – and works produced by visual artists that use sound, most often found in a gallery context (Licht, 2007).

Sound art bears some similarity to Wishart’s concept of sonic art, in that it acts as an umbrella term, and listening mode, that captures a range of practices, but it differs in its focus. Sonic art attempts to capture all possible creative endeavours that use or relate to sound. As LaBelle, a prominent theorist and historian of sound art succinctly puts it, sound art: “as a practice harnesses, describes, analyses, performs, and interrogates the condition of sound and the processes by which it operates” (2006). Sonic art is all art that can be listened to; sound

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27 In the following chapter, I revisit the concept of sonic art and its utility as a tool to capture a range of sonic practices, as part of the formulation of my creative methodology.
art is all art that can be listened to that critically engages with, or can be interpreted as critically engaging with, the nature of sound.

Over its lifetime so far, sound art has evolved from being a term used retroactively to capture works from established practices, towards a field of practice in its own right. Several significant texts have been published endeavouring to define sound art historically (Licht, 2007, Kahn, 1999), and critically (LaBelle, 2006, Voegelin, 2010), and in the case of Kim-Cohen’s *In the blink of an ear*, to shape its ongoing development (2009).

Salomé Voegelin’s *Listening to noise and silence: towards a philosophy of sound art* (2010) is the most significant text to tackle the experience and act of listening to sound art, and it attempts an aesthetic philosophy of sound art directly based on the experience of listening to a selection of works. Like Small and Corradi Fiumara, Voegelin’s descriptions of listening to sound art emphasize listener agency and the generative quality of listening, and the reciprocal co-creation of listeners’ identity and experience of self with the listened to. Like Ihde and Nancy, she discusses the relationship of visual perception, art, and philosophy to auditory perception, art, and philosophy. However, while taking great care to maintain separation of the sensory modes she does not make them adversaries, but rather like Chion, aims for the visual and the auditory to be augmentations of one another.

For Voegelin, for sound art to exist, listeners must perceive it as such. This is true in a global sense: no sound exists as sound unless listened to as sound. It is also true in a specific sense: many of her examples are – as in much sound art criticism – unambiguously part of existing disciplines such as music or field recording, and become sound art when the listener listens to and discusses them as such; applying the concept “sound art” as a mode of listening.

Sound art and its associated literature investigates the nature of the act of listening to sound aesthetically, by creating listening experiences and an aesthetic and ideological framework through which to interpret them that reorient the listener’s relationship to sound as an aesthetic object, and object of inquiry. It invites its listeners to engage critically with their own acts of listening to sound aesthetically, by requiring that they learn to listen to aesthetically organised sound as an expression of and critical
engagement with its own nature. Similarly to Western art music, induction to sound art’s ideology and aesthetics often takes place through exposure to the works themselves, accompanied by texts such as exhibition programs or artist talks. Due to this factor, the overtness and quality of sound art’s demands for critical engagement with listening depends on listeners reading or listening to these ancillary materials. Familiarity with its critical texts augments and deepens engagement with its ideology and aesthetics.

For an artwork to critique listening in the same way that sound art critiques the act of listening aesthetically, it would need to lead listeners to judge sound in general by a novel set of criteria – for example, its status as an expression of and critical engagement with its own nature. Perhaps a more useful objective for sonic artworks that seek to critique listening would be – to paraphrase LaBelle’s description of sound art – to involve its listeners in the harnessing, description, analysis, performance, and interrogation of the condition of listening – rather than sound – and the processes by which it operates.

Kim-Cohen: non-cochlear sound art

Seth Kim-Cohen’s *In The Blink Of An Ear: towards a non-cochlear sound art* (2009) builds on sound art’s existing theory and artworks, but endeavours to locate the artwork beyond the act of listening, in the realm of ideas, terming it non-cochlear, after Duchamp’s non-retinal visual art. In it Kim-Cohen interprets sound art’s concern with sound itself as a parallel of mid-century American abstract painting’s focus on the immanent properties of the painting as object, under the influence of Greenberg’s criticism (1986). Seeing a developmental dead end for sound art in its similarities to this movement, he suggests that it take further instruction from history, and make a conceptual turn.

Kim-Cohen proposes that sound artists shift their focus from sound as such, towards the exploration of discourse and idea through sound, in preference to, or as well as, taking the art object – or sound – as an end in itself (Krauss, 1985, Alberro and Stimson, 1999, Goldberg, 2011). Giving contemporary examples and historical precedents, he makes a case for the pursuit of a sound art that can engage with concerns immanent to itself – such as put forward by Labelle – and external to itself.
Kim-Cohen’s formulation of a conceptual, non-cochlear sound art implicitly presents a profound challenge to the act of listening aesthetically, by setting it aside. He provides a framework through which listeners may interpret sound that reorients their relationship to it, making sound a source of conceptual inquiry, and the artwork the result of that inquiry as an idea in the mind of the listener, after the act of listening. He invites listeners to engage critically with their acts of listening to sound aesthetically, by requiring that they learn to listen to aesthetically organised sound as a critical engagement with its own nature, and with concepts and meaning beyond itself.

For a sonic artwork to critique listening in the same way that Kim-Cohen critiques the act of listening aesthetically in his text, it would have to lead its listeners to attend to sound in general, not as an end in itself but as a source for the inference of ideas or other outcomes.

**Summation**

Over the course of this chapter, through consultation with the literature of a range of disciplines, I have demonstrated a number of ways in which critiques of listening have been undertaken in the past, and how these affect readers’ or listeners’ critical engagement with listening:

- Psychoacoustics and auditory neuroscience enable critical reflection on listening by their readers, through comparison of descriptions of the mechanisms of the human auditory system with readers’ own experiences of perceiving.
- Listening studies enables critical engagement with listening by its readers, through comparison of models of listening’s cognitive structure, and ideal characteristics and skills with readers’ experiences, and further encourages it through statements highlighting the limitations of these models.
- Ihde leads readers through a virtual experience of simultaneously experiencing and critiquing listening, and further encourages critical engagement with listening through comparison of his commentary on its qualities and structure, on the relation of listening’s characteristics to those of other perceptual modes, and his
exposing the multiplicity of types of contextually defined listening, with readers’ own experiences of listening.

- Corradi Fiumara encourages her readers to critically reflect on the act of listening to language, through comparison of their own experiences with her discussion of listener agency and listening as a creative, interpretive phenomenon, and her situating language as a product of listener experience.

- Nancy encourages his readers to engage critically with the act of listening to philosophy, through comparison of their own experiences with his discussion of listening’s use as a conceptual tool in philosophy, and his questioning of its association with the concepts of understanding and judgement.

- Adorno encourages his readers to engage critically with the act of listening to music, through comparison of their own experiences with his discussion of and theorisation on the effects of technological mediation and marketing on musical listening, and his proposition of structural and atomistic or infantile types of listening.

- Attali encourages his readers to critically reflect on the act of listening to music, through comparison of their own experiences with his discussion of the power distributions implicit in and that may be extrapolated from the act of listening to music, its influence on social relationships, and listener agency in constructing sound from a substrate of noise.

- Small encourages his readers to engage critically with the act of listening to music, through comparison of their own experiences with his discussion of listener agency in constructing music’s meaning, replacing music with the process of musicking, and the listening act’s influence on listeners’ status as social agents.

- Chion encourages his readers to engage critically with the act of listening to cinema, through comparison of their own experiences with his discussion of the interacting influence of auditory and visual perception, his definition of synchresis, his method for analysis of sound in cinema based on masking and forced marriage, and his outlining of causal, semantic, and reduced listening modes.

- Ethnomusicology enables its readers and listeners to critically reflect on the act of listening to music, through comparison of their own experiences with its depictions of the nature and meaning of the experiences of making and listening to music across numerous cultural groups.
• Western art music’s innovations require its listeners to critically engage with the act of listening to music in order for new music to remain intelligible to them, through comparison of their previous experiences of listening to music with an unfamiliar variation of its principles.

• Cage encourages his readers and listeners to engage critically with the act of listening to music, through comparison of their own experiences of listening with his discussion and creative application of the concept of the appreciation of sound-in-itself, and its interpretation of all sound as music.

• Schaeffer encourages his readers and listeners to engage critically with act of listening aesthetically, through comparison of their own experiences of listening with his discussion of the concept of acousmatic listening, and its application to musique concrete as well as other sound.

• Schafer encourages his readers and listeners to engage critically with the act of listening to environmental sound, through comparison of their own experiences of listening with his discussion of the concept of acoustic ecology and its application to intensified aesthetic judgement of the soundscape.

• Oliveros encourages her readers and listeners to engage critically with the act of listening aesthetically and to all sound, through comparison of their own experiences of listening with her discussion of the concept and practice of deep listening, and its application to the expansion of awareness of the auditory field.

• Wishart encourages his readers to engage critically with the act of listening aesthetically, through comparison of their own experiences of listening with his discussion of the concept of sonic art and its application to the appreciation of all possible aesthetically organised sound.

• Sound art and its associated literature encourages its listeners and readers to engage critically with the act of listening aesthetically, through comparison of their own experiences of listening with its exploration of aesthetically organised sound as a critical engagement with its own nature.

• Kim-Cohen encourages his readers to engage critically with the act of listening aesthetically, through comparison of their own experiences of listening with his discussion of the concept of non-cochlear or conceptual sound art that explores the concept and nature of sound, and concepts and meaning beyond sound itself.
Interpreting these past critiques of listening, I have also remarked on what a sonic artwork would have to achieve in order to emulate how these critiques affect readers and listeners:

- To enable critical engagement with listening in the way psychoacoustics and auditory neuroscience do, it would need to demonstrate to listeners the mechanisms and limitations of the human auditory system.

- To enable critical engagement with listening in the same way as listening studies, it would have to present listeners with and comment on models of listening’s structure, and standards, and these models’ flaws.

- To enact a critique of listening as Ihde does, it would need to lead its listeners through an experience of listening that comments on its own qualities and structure, on the differences between perceptual modes, and the differences between types of listening.

- To encourage critical engagement with listening in the same way Corradi Fiumara does with the act of listening to language, it would be required to demonstrate listeners’ agency, and listening’s simultaneous construction of sounds’ meaning, and the alteration of the listener through assimilation of the listened to.

- To encourage critical engagement with listening like Nancy does with the act of listening to philosophy, it would have to demonstrate the relationships and contradictions between meanings of the term listening, and the limitations on listener experience caused by listening’s acts of judgement.

- To encourage critical engagement with listening in the way Adorno does with the act of listening to music, it would need to demonstrate the qualities of an experience of listening, those of an altered form of that experience through the addition of a form of mediation, and the qualitative differences between the two states.

- To encourage critical engagement with listening in the same way as Attali does with the act of listening to music, it would be required to illustrate how listening constructs sound from noise, the social, power, or other relationships implicit in listening, and parallels between the structures of listening experiences and social, political, economic, or other phenomena.
• To encourage critical engagement with listening like Small does with the act of listening to music, it would have to illustrate listeners’ agency in constructing meaningful sound in the act of listening to it, and the social implications of listening.

• To encourage critical engagement with listening like Chion does with the act of listening to cinema, it would need to demonstrate the mutual influence of listening and other perceptual modes, the additional and illusory meanings produced through their combination, and the differences between modes of listening.

• To encourage critical engagement with listening in the way ethnomusicology does with the act of listening to music, it would need to present an alternative version of the experience of listening, with a set of culturally contextualising values, relationships, and behaviours, against which to compare listeners’ own.

• To demand critical engagement with listening in the same way innovations in Western art music do with the act of listening to music, it would be required to present an alternative version of familiar system of sound organisation, that violates and incrementally builds on the assumptions by which that system is understood.

• To encourage critical engagement with listening as Cage does with the act of listening to music, it would have to lead listeners to interpret all sounds as equally deserving of attention, and interpret them all through one value system.

• To encourage critical engagement with listening in the same way Schaeffer does with the act of listening aesthetically, it would have to lead listeners to suspend one aspect of listening – for example its assignment of identity to sound – in favour of intensifying its other aspects.

• To encourage critical engagement with listening like Schafer does with the act of listening to environmental sound, it would need to direct listeners to broaden their attention to sound, intensify their judgement of it, and assume more responsibility for its organisation.

• To encourage critical engagement with listening in the way that Oliveros does, it would need to lead listeners to suspend judgement of sounds’ relative importance, and attend to as much of the auditory field as possible at one time.
• To encourage critical engagement with listening as Wishart does with the act of listening aesthetically, it would be required to lead listeners to attend to sound, and judge it capable of being judged, but suspend judgement of it attached to any specific value system.

• To encourage critical engagement with listening in the same way that sound art does with the act of listening aesthetically, it would need lead listeners to judge sound in general by a novel set of criteria. To encourage critical engagement with listening in the way sound art does with sound, it would need to lead listeners to harness, describe, analyse, perform, and interrogate the condition of listening, and the processes by which it operates.

• To encourage critical engagement with listening in the way Kim-Cohen does with the act of listening aesthetically, it would have to lead listeners to attend to sound in general, not as an end in itself but as a source for the inference of ideas or other outcomes.

These examples, and my commentary on their potential emulation, provide ample goals and provocation for the production of new sonic artworks that engage in and induce critical reflection on listening. In a variety of ways they enable, enact, or encourage critical appraisal of listening in general, or listening to sound in a specific way, by providing their readers or listeners with information or conceptual tools, or by requiring listeners to alter how they listen to a class of sound. Unfortunately for the purposes of this project, these examples give little indication of a method by which to make these artworks, or validate them as achieving their intent in listener experience.

For one thing, the methods by which the majority of these examples enable, enact, or encourage critical engagement with listening rely mostly or entirely on expressing their arguments using language, in texts external to the listening experiences they refer to. These are of little help in resolving the problem of how to critique listening using sounds with less determinate semantic meaning, or of how to critique listening using the object that is being listened to. Those that rely less heavily on words, and that use the object of listening to affect the act of listening – such as those that occur in music – rely on manipulation of and elaboration on a system of organisation associated with one specialised type of object of listening, tied to one specialised type of listening. Therefore,
these are also of limited use as models for the production of artworks that critique forms of listening beyond one specialised type.

Among the examples discussed, Ihde’s phenomenology of listening comes closest to achieving the aims of this project, although its dependence on language and its critique via reading rather than listening limits its applicability. It is an object of listening – virtualised through text – that enacts and encourages critical reflection on listening-in-general, and (acknowledging listening’s complexity) specialised types of listening, by interweaving in that experience critical commentary consisting of exposition of the experience’s features, and encouragement of novel contemplation of those features.

As described in the chapter that follows, in devising this project’s methodology it has been my goal to be able to produce artworks that achieve similar experiential and reflective results to Ihde’s phenomenology, and have a similar acknowledgement of listening’s complexity, but in listener rather than reader experience, and with less reliance on language. My further goal beyond Ihde’s example has been to be able to validate these results through listener consultation and comparison of listener experiences.

There is a gap in knowledge and creative work in the sonic arts: a method has yet to be codified by which to make sonic artworks that overtly engage in a process of critical argumentation on the subject of, and result in experiences of critical appraisal of, listening. This project addresses that gap.
Chapter 2:
Methodology: How does an artist justify a sonic artwork as a critique of listening?

In order to produce sonic artworks that function to critique the act of listening, I have had to determine a methodology which would allow me to structure original artworks as critical discussions of listening, and to determine whether those artworks resulted in critical reflection on listening by their listeners – thereby validating them; integrating creative and research elements.

A research methodology consists of a body of methods for producing knowledge, supported and connected by a set of assumptions as to what constitutes a valid approach and appropriate methods for the production of knowledge, predicated on a further set of assumptions as to what constitutes knowledge of value (Jha, 2008). A creative methodology consists of a body of methods for producing art, supported and connected by a set of assumptions as to what constitutes a valid approach and appropriate methods for the production of art, predicated on a set of assumptions as to what constitutes art of value.

Viewing this project’s aims in terms of art production, its methodological problem was that of determining a valid approach and appropriate methods for the production of sonic artworks, that structures them as critical discussions of listening from the perspective of the artist-researcher. In the course of this chapter, I address this problem by defining the kind of art of value to this project, situating it relation to its precursor art forms of sonic art and conceptual art. Further, I describe the rationale by which I have structured the project’s artworks as critiques of listening from the artist-researcher’s perspective, based on turning the system of logic and standards of judgement used by the act of listening on itself, integrating schema theory, and immanent critique.

This leads into the project’s methodological problem in terms of knowledge production: that of determining whether the artworks resulted in critical reflection on listening from the perspective of their listeners. I address this problem by defining the kind of
knowledge of value to this project, integrating the established concepts of abductive and praxical knowledge. Further, I describe the method I have used to determine whether the artworks induced critical engagement with listening from the listener’s perspective, integrating the methods of heuristic research, and creative practice.

**Art of value**

Normally, sonic art of value consists of sound that produces an aesthetically pleasing listening experience within the standards and values of a particular form of aesthetic listening. It evokes a given system of judgement by following its associated system of sound organisation: for example, evoking musical listening by using pitched sounds organised using functional harmony. It proves itself valid and/or valuable by successfully developing or arguing an idea within that system, and within the aesthetics of the cultural group to which it is directed. In music, this would consist of successfully developing a musical idea in a way that accords with its principles of motivic and harmonic development, and that meets its audience’s ideals of beauty. Further, an artwork may prove itself exceptionally valuable by innovating within a given system – any work chosen from the previous chapter’s section on innovation in music will illustrate this point.

The art of value to this project differs from this norm. Prior to meeting any standards of worth attached to an established system of listening or sound organisation, its foremost criteria of worth are: its success in engaging critically with listening from the artist’s perspective; and its resulting in critical appraisal of listening by its listeners. Nevertheless, even though its value does not derive from a particular method of production, its focus on listening does set some basic conditions for potential methods for its production, and links it to precedents in terms of existing approaches to art-making.

The act of listening is the act of the mind perceiving sound. For artworks to engage critically with listening and affect listener awareness of it, logically they must manipulate sound, and affect or produce effects in the listener’s mind. The precedents for creative approaches that emphasize pursuit of an idea over and above any given method are, for

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28 Such as music, sound art, musique concrete, etc. as discussed in the previous chapter.
the production of artworks using sound, sonic art; and that affect the mind, conceptual art.

Sonic art
The emphasis of this project’s art of value on the act of listening, over sound itself, eliminates giving primacy to any particular set of standards as to what constitutes aesthetically organised sound of value, or any creative methodology or methods those standards may imply. In theory, any form of aesthetically organised sound may be considered fair game, and thus the project’s art of value aligns with the catholic stance of Wishart’s sonic art – whereby sound organised by any aesthetic standards is equally valid in the pursuit of a given intent (1996). This alliance with the precedent of Wishart’s sonic art does not, and could not, guide my choice of methods of production, but it does validate my position of holding all potential methods as equally viable.

As demonstrated in the previous chapter, aesthetically organised sound is perfectly capable of effecting change in the experiencing of sound by listeners, and implicitly critiquing listening. In most cases though, these do not appear to be the result of an artist’s intent to affect listening per se, nor do they necessarily overtly affect conscious critical awareness of the experiencing of sound. For a precedent for art that takes as its core aims embodying and evoking ideas, I look to conceptual art.

Conceptual art
Conceptual art is art in which the idea or concept that forms the basis of the artwork takes precedence over the material expression of the artwork. The methods conceptual artworks use to embody or evoke their ideas may involve material artefacts or sensory experiences; text on its own; or material artefacts or sensory experiences in combination with text – this may simply be a title, but might also include additional text. By any of these methods of carrying out or evoking an idea, what matters for conceptual artworks is the idea on which they are based, and the effects produced in the minds of people experiencing them (Alberro and Stimson, 1999).
The methods used for producing the artefacts and experiences used in conceptual art are – similarly to sonic art – not bound to any specific system or standard of production, and their selection tends to revolve around the concerns of a given work. In some artist’s work – such as LeWitt’s – a fixed method for artworks’ conception, that systematically dictates methods of material production, the nature of any artefacts, and acts of production, is observable at play. However, this method is not the rule for all conceptual artists.

Conceptual art’s emphasis on the explicit production of effects in the minds of people experiencing it, makes it the ideal complement to sonic art in setting the stage for the art of value to this project, as does their shared catholic stance in relation to methods for producing artefacts and sensory experiences. I have taken conceptual art’s method: of using objects, experiences, and strategically deployed pieces of text as tools to evoke ideas, and used it as a guide for the production of this project’s art of value, directing it towards sound, and sound perception.

As discussed in the previous chapter, there is precedent for combining conceptual art and sonic art: Kim-Cohen’s proposed non-cochlear sound art, art that interrogates sound’s ability to convey ideas (2009). Kim-Cohen’s formulation of a conceptual sound art is not an adequate model in the context of the aims of this project though, as it focuses solely on sound’s ability to convey ideas, and glosses over the act and experience of listening. His “non-cochlear” conceptual sound art emphasizes ideas formed in the mind after the listener has decoded the meaning of an artwork, in a mental process separate from the experiencing of the artwork. This project proposes artworks for which the process of experiencing – listening – is their primary subject; artworks that emphasize, produce effects in, and induce critical awareness of, that experiencing.

Rationale for structuring sonic artworks as critiques of listening

As there is no clear precedent for a method for tackling this project’s particular creative problem, I have had to devise an original line of reasoning by which I can justify my intent – of structuring an artwork as a critique of listening – as occurring.


29 LeWitt describes his method as devising ideas that can act as “machines that make art”
Immanent critique

For a sonic artwork to form a critique of listening in the act of being listened to, a critical evaluation of the experiencing of sound would have to arise internally to the experiencing of sound; the listener would critically attend to – listen to – listening in the course of listening. This would be an *immanent critique* of the listening act.

Immanent critique is a term applied to a variety of forms of argument made by Kant (1899), as discussed by De Boer (2009); by Hegel (1929, 1967), as discussed by Buchwalter (1991) and De Boer (2011); by Marx as discussed by Renault (1995), and Celikates (2011); by Benjamin (1996), as discussed by Lijster (2011); by Adorno (1973a), as discussed by Freyenhagen (2011); and by Habermas (1984), as discussed by Stahl (2013), among others. What these arguments have in common is that they endeavour to judge the object of their critique’s judgements in the way that their object of critique judges other things. An immanent critique uses criteria of assessment drawn from within a system to test the assumptions implicit in that system. This technique is often used to expose inconsistencies or contradictions in an object of critique, to show that it cannot stand up to the logic or standards of judgement it applies to the things it judges. For example: using laws from a legal system to argue that the system itself endorses or commits crimes, or using the grammar of a language to argue that the language itself undermines its own ability to represent meaning. Objects of immanent critique are often value systems, or things that express value systems (Sonderegger and Boer, 2011).

To do an immanent critique of listening would mean to judge the judgements that listening performs in the way listening judges sound. To achieve this, I had to determine the way in which listening judges sound, and apply the logic and standards of that system of judgement to listening, through the act of listening: specifically, through the act of listening to sonic artworks.
Schemata

A common concept used to theorise the judgements made by perception – and the one used here – is the concept of schemata.\(^{30}\) A schema is a set of expectations a person may hold as to what may constitute a physical or mental object, its meaning, and actions relevant to it in a given context. All acts of perception are describable as judgements of the fitness of stimuli to meet the expectations of schemata, including their relevance to the context at hand, allocating attention accordingly (Merleau-Ponty, 1945/2005, Piaget, 1977, Rumelhart, 1980, Mandler, 1984, Kant, 1899).\(^{31}\)

The expectations that constitute a schema for an individual are expectations of the *content*, and of the *form* or *behaviour*, of the object of judgement. If a stimulus matches the expectations of *content*, and of *form* or *behaviour* that constitute a schema, including its relevance to the context in which it is experienced, the perceiving individual will allocate attention to the stimulus and it will be constructed and experienced as an intentional object.\(^{32}\) If a stimulus does not match the expectations of any schema held, it may be experienced as an outlier instance of a schema it partially matches, or if it is completely foreign and/or judged irrelevant it may not be experienced at all, the perceiver may be attentionally blind or deaf to it (Velmans and Schneider, 2007).\(^{33}\)

Schemata can be very broad: for example, the schemata of what I understand to be the modes of intentionality of experience: perceiving a sound, remembering a sound, imagining a sound. Schemata can also be very specific: such as the schema of what I understand to be the sound of a clap. I know what the sound of a clap is because I have

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\(^{30}\) Schema: singular form, schemata: plural form.

\(^{31}\) A concept with similar meaning to the application of schemata is “framing”, mostly used in media, communication, and political studies. I have chosen schema as preferable due to its use and association with phenomenology and psychology, areas more closely related to my research. Instances of use of the terms “frame” or “framing” in this dissertation denote something that prepares a context, therefore stimulating the activation of schemata (Goffman, 1974, Chong and Druckman, 2007, de Vreese, 2012, Iorgoveanu and Corbu, 2012).

\(^{32}\) I use the terms “attention”, “intentionality”, and “intentionalities” in the same sense as Merleau-Ponty in his *Phenomenology of Perception*, and specifically to sound by Ihde in *Listening and Voice* (Merleau-Ponty, 1962, Ihde, 2007).

\(^{33}\) Unequipped or unable to attend to something, to the point of being completely unaware of its existence.
encountered it in the past, and learned a set of characteristics by which to judge its identity. In terms of its content, I understand it to have a characteristic timbre. In terms of its form or behaviour, I understand it to be a short sound with a rapid attack and decay, made by a person striking their hands together.

Schemata are self-evaluating systems. People learn more about things over time, and the schemata for the things they know self-evaluate, by comparing their existing criteria for recognition of an object with the exhibited characteristics of a recognised object. If an object matches a schema well enough to be recognised, but also has characteristics the schema does not account for, elaboration on the schema may occur. For example, over time, I have learned that a clap can vary widely in loudness; that the timbre of a clap can vary depending on the size of a person’s hands and the way they strike their hands together; and that the sound of one person clapping relates to, but differs from the sound of many people clapping. I also know what a clap can mean, and have learned contextual cues by which to judge its meanings. For example, in the context of a concert, rapid repeated clapping can signal approval of a performance, whereas slow repeated claps can signal the opposite, and further subtle contextual cues can signal further, subtler meanings, such as sarcasm. Through this learning process, whereby the judging of stimuli against schema has exposed inadequacies in the schema, adding further conditions to refine it and differentiate it from other schemata, my schema for a clap has evolved and become more complex in its judgements of identity and meaning.

Schemata are not only capable of change but also of evolving through self-judging, which means that schema already spontaneously critique themselves on a tacit level. What the artworks of this project endeavour to do is to apply the structure of the judgment of sound done by listening through the application of schemata, to listening itself, to provoke listening to self-judge, preferably overtly in the awareness of the listener.

**Immanent critique of listening through schemata**

Listening judges sound’s identity and meaning through a test of fitness and relevance of content and form, between pre-existing schemata and externally given stimuli.
To immanently critique listening, an artwork must enact a test of the fitness and relevance of listening-as-judgment’s content (expectations of schemata) and form (acts of judging), between the listener’s pre-existing schema of listening-as-judgment, and an alternate notion of listening-as-judgment, in effect enacting a critical argument contrasting two competing schemata of listening in the structure of the experiencing of the artwork.

To do this, an artwork must structure experience in a way that establishes a situation that engages listening, but comes to require a form of listening that only partially matches the one initially engaged. It must then call into question the expectations and acts of judgment of the initial form of listening, and spur a change in listening, or in the awareness of listening.

By following this rationale, I have been able to justify the artworks that comprise the practice aspect of this project as structured as critiques of listening, from the perspective of the artist making them.

**Applying the rationale to methods of art production**

The earlier discussion of the precursors to this project’s art of value – sonic art, conceptual art – left the problem of selecting methods of art production unresolved, as within both these precursor forms any method is in principle equally valid. Using the rationale for structuring sonic artworks as critiques of listening, and to some extent revisiting discussion of the literature review, I now evaluate a selection of methods of sonic art production, and their compatibility with the rationale. To be compatible they must use sound, but be capable of emphasizing the mental experiencing of sound, by contrasting forms of judging sound’s identity and meaning.

There is an extensive body of literature concerned with methods of making art with sound. These include manuals on techniques and styles of making (Dallin, 1974, Persichetti, 1978, Cope, 1997, Collins, 2006), texts on the approaches used by specific prominent artists (Partch, 1974, Bernard, 1987, Schiff, 1998), as well as texts on approaches to music criticism and analysis from which many artists extrapolate creative
methods (Smalley, 1997, Blackburn, 2009). While none of these deals expressly with the manipulation and contrast of forms of listening, each description of a method gives insight into how pre-existing sonic art forms are made to be listened to, and the judgements made of the identity and meaning of sound in creating and listening to them.

In the previous chapter, I described a series of ways of listening to sound aesthetically, engendered by various art forms that use sound. These art forms, paired with their creative methodologies are:

- Musique concrete/musique concrete-making;
- Sound walks, field recording/acoustic ecology;
- Deep listening exercises/deep listening;
- Music/music-making;
- Sound art/sound art-making;
- Non-cochlear sound art/non-cochlear sound art-making.

Musique concrete, acoustic ecology, deep listening

Musique concrete-making, acoustic ecology, and deep listening all take everyday sound, the listener’s default listening stance, and judgements of sound’s identity and meaning, and overlay an aesthetic form of listening, and judgement of sound’s identity and meaning. Respectively, these are based on: the immanent qualities of objets sonore, the ethical worth of sound, and sound as an object of meditation. By giving sounds that a listener already has identities and meanings for additional identities and meanings, the sound organised by these creative approaches may be listened to using multiple forms of listening. For example, a work of musique concrete may be listened to as a set of temporal and timbre relationships between acousmatically perceived objets sonore; or, contrary to acousmatic listening, it may also be listened to as a collage of train whistles, birdcalls etc.; or it may be listened to in both ways at the same time. Using re-contextualisation to add identities and meanings to sound, these three creative

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34 For example, many composers reverse Heinrich Shencker’s analytical approach in structuring their works. Some have also begun using reversal of Denis Smalley’s more recently devised analytical approach—spectromorphology—as a set of creative tools.
approaches all potentially engage multiple forms of listening, and are appropriate to this project.

Music

Music-making also has the potential to engage multiple forms of listening-as-judgement of sound’s identity and meaning, but it does not necessarily do so, and not in the way of the aforementioned creative approaches. Musical sound does not become an object of aesthetic listening by re-contextualisation; musical sound begins as an aesthetic object, and may be listened to as such, and be satisfactorily meaningful to a listener, in-and-of itself. However, within a cultural group, such as people familiar with Western tonality, music may be listened to as having additional layers of meaning beyond or informing its aesthetic quality as sound: for example, the connotation of emotional states. This form of listening alters music’s meaning without overwriting its primary identity as an aesthetic object, contrary to the alteration of meaning and identity that occur in the aforementioned forms that re-contextualise and therefore alter the meaning and identity of sound.

Where alteration of musical sound’s identity and meaning often occurs, in a reversal of the aforementioned re-contextualisation, is in its use in recorded form. In its use as part of the ambient soundscape in a shopping mall, music often ceases to be listened to as an aesthetic object, and its identity and meaning become equivalent to that of any other sound in that environment (voices, footsteps, air-conditioning, automatic doors). In its traditional use and contexts, it is possible to judge music to have multiple meanings but a stable identity. Re-contextualised, it is possible to judge music to have multiple meanings and identities, and therefore may be appropriate to this project if used in this way.

Sound art, non-cochlear sound art

Sound art and non-cochlear sound art may, but do not necessarily always, engage multiple forms of listening, by often re-contextualising what may otherwise be considered musical sounds, and everyday sounds, in a gallery or visual art world mediated aesthetic context. By entering the gallery context, musical and everyday sounds have additional forms of listening and ways of interpreting meaning overlaid on their original
associated form of listening. In the case of sound art: a form of listening that primarily emphasises what sound can be and mean in and of itself; in the case of non-cochlear sound art: what meanings sound can have, and sound’s relationship to meaning. In both cases, these sounds also submit to association with the range of meanings accessed by the visual and plastic arts in the gallery context. Again, through re-contextualisation, the sounds organised by sound art and non-cochlear sound art may engage multiple forms of listening, and therefore these approaches may be appropriate to this project.

In their own way, any of the abovementioned creative methods are applicable to the production of artworks that meet the rationale of this project. What is apparent from the above discussion is that re-contextualisation of sound appears to be the key factor in engaging multiple forms of listening-as-judgement of identity and meaning.

Therefore, in a method for making sonic artworks justifiable as structured as critiques of listening, the sound’s context must change or become ambiguous in order to call up multiple forms of listening-as-judgement, and this alteration or ambiguity must become apparent to the listener.

The two foremost criteria in the definition of the project’s art of value were: its success in engaging critically with listening from the artist’s perspective; and its resulting in critical appraisal of listening by its listeners. So far, I have defined the art of value to the project, determined a rationale to guide its production, and considered the applicability of this rationale to existing methods of sonic art production. What remains is to describe the knowledge of value and the research method used to gather and interpret it, in order to determine whether artworks made to this definition and rationale by these creative methods result in critical engagement with listening by their listeners.

Knowledge of value

Many research projects based in arts practice focus solely on the knowledge produced by the artist in the experience of making art, as being of value. By necessity, this project differs, as its core aim focuses on discovering how to produce artworks that affect listeners in a specific way – that produce experiences of critical engagement with listening. This project’s desired addition to knowledge lies in a distillation of both the knowledge
produced by the artist in relation to the production of the artwork, and the knowledge produced by listeners in the experience of apprehending an artwork, with emphasis given to the latter as the focus of the intended net addition to knowledge.

**Artist knowledge**

In Barret and Bolt’s *Practice as Research: Approaches to Creative Arts Enquiry* (2010), the knowledge produced by the artist in the experience of making art is characterised in terms of Heidegger’s notion of knowledge produced in handling the material world, or as Ihde further interprets from Heidegger: as *praxical knowledge* (Heidegger, 1927/2010, Ihde, 1978, Barrett and Bolt, 2010).

The concept of *praxical knowledge* situates practice as the source of ideas and theory, rather than ideas and theory as the source of practice – somewhat like the relationship between hypotheses and theory and the phenomena under investigation in grounded theory (Moustakas, 1994). Praxical knowledge is emergent in an individual’s embodied engagement with the material world through time, which in the creative context of this project is the artist’s engagement with the material world in the making of sonic artworks.

The praxical knowledge produced in the experience of making artworks accounts for part of the knowledge that is of value to this project. However, the knowledge produced in the experience of apprehending artworks by a listener is of a different character, and is of greater importance to the research problem.

**Listener knowledge**

There are at least two ways to think of what constitutes the knowledge produced in apprehending an artwork. First, as another form of praxical knowledge, the knowledge in the practice of experiencing the artwork, associated with the skill with which the perceiver deals with the stimuli provided by the artwork. Second, it can be characterised as the knowledge produced by the experiencing of the artwork, that is, the perceiver’s interpretation of their experience of the stimuli.
It is a common belief that all interpretations of an artwork are valid, hence the axiom “beauty is in the eye of the beholder”. The problem in equating this validity with truth and therefore classifying this mental activity as knowledge lies in the volume of valid experiences – or potential truths – that may result from any number of people encountering the one artwork. To consider the thought produced by the experiencing of an artwork as knowledge – rather than, or as well as, subjective opinion – requires some means to support the validity of numerous parallel truths arising from a common stimulus. Fortunately there is theoretical precedent for knowledge that occupies a place among an array of potentially valid truths, inferred from given stimuli and accrued prior knowledge: that produced through abductive inference, abductive knowledge (Josephson and Josephson, 1994, Lipton, 2004, Bird, 2005, Douven, 2013).

Abductive inference is a form of reasoning that produces a hypothesis that explains observed phenomena but is not an exclusive truth: it is a “best explanation” or one potentially valid truth selected from an array of potentially valid truths associated with a set of stimuli (Josephson and Josephson, 1994). An example of abductively inferred knowledge is a doctor’s diagnosis. In a consultation with a patient, a doctor will infer from symptoms presented and the doctor’s accrued knowledge of possible diagnoses matching the presenting symptoms, a best or most useful diagnosis among an array of potential truths. A diagnosis is justified through an argumentation process, by comparing possible diagnoses, eliminating the least plausible or relevant, privileging the most plausible or relevant, and selecting the best or most useful from that set, with, in the clinical context, ‘most useful’ being defined by clinical utility (Josephson and Josephson, 1994).

The stakes are not so high in potentially ‘getting it wrong’ in the experiencing of an artwork but the principle at work is the same. A perceiver infers from the stimuli presented and their accrued knowledge of the art form and potential interpretations, a preferred best or most useful interpretation among an array of potential truths. An interpretation of an artwork is justified by the perceiver’s internal comparison of possible interpretations of the work, eliminating the least plausible or relevant, privileging the most plausible or relevant, and selecting the best or most useful from that set: in the art

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35 Also known as inference to the best explanation or IBE
context ‘most useful’ being defined by aesthetic preference and internal consistency with the perceiver’s understanding of art.

The listeners’ abductive knowledge produced in apprehending an artwork accounts for the bulk of \textit{knowledge of value} to this project, and much of the project’s original contribution to knowledge consists of distillation and interpretation of listeners’ abductive knowledge of the project’s artworks. In the following section, I discuss potentially relevant research methods for gathering, distilling, and interpreting this data, and my selection and adaptation of the heuristic research method.

\textbf{Research methods}

There is a growing body of literature on the integration of creative and research practices, notable recent examples being Barrett and Bolt’s \textit{Practice as Research: Approaches to Creative Arts Enquiry} (2010), Smith and Dean’s \textit{Practice-led research, research-led practice in the creative arts} (2009), and Knowles and Cole’s \textit{Handbook of the arts in qualitative research : perspectives, methodologies, examples, and issues} (2008). These books depict a dizzying diversity of approaches to integrating creative and research practices, and the array of uses of creative practice and artworks in past research. They demonstrate that there is no one all-encompassing answer to the integration of creative and research practices at this time, rather creative and research methodologies must be adapted to one another, and methods determined in accordance with the needs of each individual creative/research project, and the questions it addresses.

Any method used to approach the problem of whether listeners’ experiences of the phenomena that constitute a sonic artwork affect those listeners’ critical engagement with the act of listening, must be capable of collecting, distilling, and evaluating qualitative data on the experiential phenomena of listeners; it must be phenomenological.

\textbf{Pre-existing phenomenological methodologies}

In his introduction to \textit{Phenomenological research methods}, Moustakas outlines five major streams of qualitative human science research that draw on the phenomenological
tradition of Husserl and Heidegger: ethnography, grounded research theory, hermeneutics, empirical phenomenological research, and heuristic research (1994).

Ethnography investigates social phenomena through fieldwork observation. Grounded research theory also investigates social phenomena through fieldwork, with an emphasis on deriving hypotheses and theory from the phenomena under investigation. Even by these most cursory definitions of these methods it can be determined that neither of these approaches is appropriate to this project due to their social emphasis, this project being concerned with phenomena of individual perceptual and interpretative experience, rather than of social interaction.

Hermeneutics investigates phenomena of consciousness and experience, and on this basis seems promising. However, by Moustakas’ description hermeneutics hinges on in-depth critical re-interpretation of data relating to a phenomenon in order to uncover hidden meanings and structures of the phenomenon. In the instance of this project, although the structure of listeners’ experiences is important in determining their experiencing of the artworks’ intended formal structure, the meanings of the works as understood by the listeners are of equal or greater importance. The implied mistrust of the face value of a text or data of the hermeneutic approach renders it only partially applicable to the project in this regard.

Empirical phenomenological research also investigates phenomena of consciousness and experience, but seeks to portray the essence of a phenomenon through structural analysis of descriptions of the phenomenon. Again, like hermeneutics, empirical phenomenology’s focus on essential structures of phenomena appears to be of a second order to the phenomena as understood by listeners – listeners’ abductively inferred knowledge of the artworks – rendering its methods of only partial use to this project.

Finally, there is heuristic research, which also investigates phenomena of consciousness and experience, but seeks to portray the phenomenon under investigation as experienced by the researcher and by the research participants rather than the structures and essences of the

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36 Essential structures
37 Either of these methods may be of use though in future or second stage research in postdoctoral work.
Methodology: How does an artist justify a sonic artwork as a critique of listening?

phenomenon; through depictions of individual experiences, composite depiction, and creative synthesis. The heuristic approach aligns more closely with the aims of this project in its privileging of experience as described, its inclusion of the experiences of the researcher as relevant alongside the experiences of participants, and its focus on creative outcomes that distil experience. Of the established phenomenological methodologies encountered, this was the most heavily drawn upon in developing the methodology of this project.38

This project is not a heuristic research project in the strictest sense as applied by Moustakas and his colleagues in psychology.39 For one thing, heuristic research ordinarily selects pre-existing phenomena and studies the experience of them in their ordinary state. For example, a pure heuristic research project might simply ask: “what is the experience of listening?” This project seeks to actively orchestrate experiences of listening in a specific way, and to study what it is to undergo these deliberately structured experiences of listening.

Method for determining whether sonic artworks induce critical engagement with listening

Having formulated a rationale for producing artworks that can function as critiques of listening from the perspective of the artist, to validate these artworks as inducing critical reflection on listening from the perspective of their listeners, it has been necessary elicit and evaluate descriptions of listener’s experiences of listening to them.

Being the pre-existing research methodology most sympathetic to the aims of this project, this project takes heuristic research’s concepts, processes and typical research program as

38 There are also some similarities between the approach taken in this project and that of experimental phenomenology, however I only learned about experimental phenomenology after data collection had taken place, and thus it has had little bearing on this project. Useful texts on this subject include Experimental phenomenology: multistabilities (Ihde, 2012) and Handbook of experimental phenomenology: Visual perception of shape, space and appearance (Albertazzi, 2013).

39 Psychology appears to be the discipline most associated with the heuristic research methodology.
Methodology: How does an artist justify a sonic artwork as a critique of listening?

a starting point, and integrates their most relevant components with the creative process, for the production of knowledge and art of value to this project.

In describing the integration of the research and creative processes, I have sought to demonstrate how the creative process is already a research process. I treat this integration as a formalisation of the creative process, as a research process similar to the heuristic program, with similar mechanisms of data collection and knowledge validation.

Concepts, processes, and program of heuristic research

As described in Heuristic research: design, methodology, and applications (1990), the core concepts of this methodology are:

• **Identifying with the focus of inquiry**: Attempting to imitate the logic of the object of study asking: “what would I do if I were the object of study?”

• **Self-dialogue**: Freeform self-interviewing on the topic of the study.

• **Self-disclosure**: Sharing the researcher’s experiences with participants, to encourage reciprocal sharing of the participants’ experiences.

• **Tacit knowing**: Knowing that resists verbal explication, consisting of: “subsidiary factors” or skills at performing tasks, these are more easily encountered in conscious awareness; and “focal factors” or ways in which the “subsidiary factors” are “focused” on a task or situation, these seem to reside in subliminal awareness and are more difficult to explicate.40

• **Intuition**: The bridging of tacit knowing into explicit knowing.

• **Indwelling**: Intense attention to the nature and meaning of the phenomenon of study in the experiences of the researcher.

• **Focusing**: The sustained process of sorting the peripheral and core themes, qualities, constituents, and meanings of the experience of a phenomenon.

• **The internal frame of reference**: The basis of knowledge in heuristic research, the internal frame of reference of individual persons.

40 Moustakas’ concept of tacit knowledge intersects significantly with and goes some way to unifying the concepts of praxical knowledge and abductive knowledge discussed previously.
The following core processes apply the aforementioned core concepts:

- **Initial engagement:** The initial inward search for and unearthing of tacit knowledge of meaningful problems, topics, themes, questions, related to the experience of the phenomenon being studied, through active self-dialogue and intuition, arriving at the core topic and question for investigating the experience of the phenomenon.

- **Immersion:** The continued unearthing of tacit knowledge in relation to the core topic and question, through active self-dialogue and intuition, maintaining openness to any possibility of meaning arising in day-to-day life related to the core topic and question.

- **Incubation:** A turning away from the question and passively allowing intuition to unearth tacit knowledge of, and deepen understanding of, the topic and question, allowing and preparing for illumination.

- **Illumination:** Revelation of previously obscured qualities, constituents or meanings of the experience of the phenomenon and their clustering into themes; correction of distorted understandings of, or synthesis of fragmented understandings of the experience of the phenomenon, from tacit knowledge through intuition.

- **Explication:** The detailed effort to understand and explain the meanings of the themes, qualities, and components of the topic and question that have been uncovered through illumination, with the possibility of uncovering more in the process of explication, through focusing, indwelling, self-dialogue, self-disclosure, and ongoing awareness of internal frames of reference. This concludes in the depiction of core themes, assembling meaningful events into a portrayal of the essences of the experience, and explication of the core components of the phenomenon.

- **Creative synthesis:** The assembly of the core themes and components of the experience into a narrative, poem, story, drawing, painting, etc. utilising verbatim material and examples from data collected, arrived at through focusing on the question, intuition and self-dialogue uncovering tacit knowledge, producing a comprehensive expression of the essences of the phenomenon.

- **Validation:** The repeated “appraisal of significance” and “checking and judging” of the coverage of the essences and meanings of the experience in the depiction of its qualities and constituents, by the researcher, verified through consultation with the participants.
These processes of heuristic research, applying its core concepts, occur across the following typical heuristic research program:

1. **Formulating the question**
   This stage is concerned with the precise formulation of a question for the explication of the nature of an experience.

2. **Preparing to collect data**
   This stage is concerned with the definition of procedures for and preparing for the process of collecting data from participants regarding the experience studied.

3. **Collecting data**
   This stage is concerned with the collection of data of experience from participants, through interviews, questionnaires, or the like.

4. **Data Evaluation**
   This stage is concerned with the interpretation of and extraction of meaning from the data collected from participants.

5. **Writing the manuscript**
   This stage is concerned with the presentation of the interpreted data in publishable form, that refines, conveys, and structures significant features of the experience studied for the reader.

To me, as an artist, the concepts and processes of heuristic research and the stages of the heuristic program described above have the ring of familiarity. Deep immersion in a problem, arising from an inward examination of experience that it may not be possible to articulate in words. Dogged pursuit of the problem consciously, and incubated subliminally, crystallising in moments of illumination, explicated and further interrogated in its explication. Arrival at a creative synthesis of the journey undertaken, validated by extended reappraisal, and verified through consultation with others, all fuelled by and fuelling intense and refined introspection, tacit knowledge and knowing and intuition.

This chain of process and experience seems to me very much like the process of making an artwork.

It is difficult to generalise about the creative process as each artist is unique, as is each artwork, and to some extent, the process that produces it. However speaking from my
personal experience as an artist, I believe there are generic stages that, although they may
not always occur in the same order or be as compartmentalised as may be represented in
this writing, are common to most creative processes. To illustrate the similarity of the
heuristic and creative programs, below is an outline of my interpretation of a generic
creative program, described in a way analogous to the research process above.

An interpretation of a generic creative program

1. **Formulating the idea/intent**
   This stage is concerned with the development of the initial idea for the artwork.
   This may be technical, conceptual, gestural, etc., the formulation of the
   orchestration of experience that the artwork will intend to achieve.

2. **Sketching**
   This stage is concerned with the attempt/s at executing the initial idea. This may
   be in the form of pencil drafts, thought experiments, rehearsals for an
   improvisation based practice, etc. The development and refinement of the
   orchestration of experience the artwork intends to achieve.

3. **Testing**
   This stage is concerned with testing the efficacy of execution of the idea in the
   sketch stage, and questioning whether the draft artwork achieves its intent.
   “Does the artwork achieve its aims?” “Is the artwork’s execution satisfactory?”
   “Does the audience like the artwork?” etc. Collection of data of the experience
   orchestrated by the artwork occurs through self through introspection, and from
   others – colleagues, friends, test audiences – through consultation and
   conversation.

4. **Redrafting**
   This stage is concerned with the interpretation of the data collected in the testing
   stage, and applying insights gained to the draft work, with reworking or
   refinements made if necessary. The testing and redrafting processes can often
cycle between one another several times, or in the case of an improvisational
practice, be a perpetual component of that ongoing practice.

5. **Presenting the final artwork**
This stage is the culmination of the above stages. The final artwork emerges from and presents the result of the interaction of the original idea expressed through the sketching stage with the data collected in the testing stage and interpreted in the redrafting stage.

Described in this way, the similarities of the heuristic research and creative programs become quite apparent:

- The first stages of the heuristic and creative programs are complementary; the former establishes a problem of collecting data of and explicating an experience, the latter the problem of orchestrating an experience.
- The second stages of the heuristic and creative programs are also complementary, they develop and refine their respective problems and arrive at a point of testing their solutions through data collection.
- The third stages of the heuristic and creative programs are closely analogous; they collect data of an experience working towards a resolution of their respective problems.
- Finally, the fourth and fifth stages of the heuristic and creative programs are analogous, in that they interpret the data collected in the third stage and develop an orchestration of experience that refines, conveys, and structures a version of the experience studied for an audience.

Creative-research program

At this level, where the heuristic and creative programs diverge most is in the relative formality or informality of their data collection and interpretation stages, and in their manner of presentation.

Beginning from the base of a creative practice, to develop an integrated creative-research process working towards a heuristic model, the most dramatic change necessary to the creative program is a formalisation of the testing and redrafting stages as data collection and data evaluation stages. This process, directed towards a suitably significant problem that has research and creative aspects, should then produce the dual outputs of a creative synthesis and a manuscript.
Working back through these changes, as applied in this project the outputs of the creative-research program are evident here in this thesis manuscript and in the exhibition of sonic artworks it accompanies. Given this project’s aims, its outputs differ from a typical heuristic program’s creative output of a synthesis of data describing a pre-existing phenomenon. The outputs here consist of a textual synthesis of data describing an orchestrated phenomenon, accompanied by a re-orchestration of the original phenomenon informed by the synthesis of data, the outcome of the process of testing the works’ efficacy in achieving their intent.

Continuing on, a suitably significant problem with both research and creative aspects has already been identified and discussed at length earlier in this document, formulated as the core question: “how can an artist make sonic artworks that critique listening?”

Finally, I have addressed the core problem through a formalised data collection by interview process, guided by the question: “what is the experience of listening to artworks that intend to critique of listening?” and organised, synthesized, and evaluated the data, testing listener’s responses against the artist’s responses to the question: “what critiques of listening do these artworks intend to form?”

Data collection

During the development of the draft versions of the artworks, I also prepared a procedure and set of interview questions for the data collection process to take place. The number of participants was kept small, due to the nature of the data required – qualitative descriptions of experience and related insights – and due to the depth of engagement that I wanted to give the participants’ responses in the analytical process, focusing on the nuances of a limited data set rather than observing large scale trends.

Based on a submission of an outline of the project, the set of interview questions that follow, and the planned participant sample, the project was granted minimal risk ethics approval under ethics ID 1340558.1, by the Human Ethics Advisory Group of the Faculty of the VCA and MCM, University of Melbourne, in October 2013, renewed in January 2014.
Interview participants

Initially, I invited ten people to participate in the project. The participants for this project were all people I knew as friends or acquaintances before the showing/interview process, and I selected them as people whose opinion of a work in progress I would reasonably ask as part of my normal creative process. I showed each participant the pieces, and interviewed them individually, one-on-one with myself.

Demographically the participants of the initial group varied in age from their mid-20s to roughly 50 years of age, mostly in the range of 25-35. All participants were middle-class, and to my knowledge all but one were Australian citizens, one participant being from Japan. Seven participants were female, three male, and to the best of my knowledge all of them were university educated. Five of the initial participants were practicing artists or musicians, and therefore had specialist knowledge that might have affected their responses. Utako was a practicing visual artist, Jane was a practicing director of a community choir, Tania was a practicing theatre artist, and Damian and Dave were practicing musicians. For the purposes of this project I considered this group representative of a typical group of people I would show a work in progress, and a fairly typical group of gallery attendees for this kind of work.

Interview questions

The questions used in the interviews were as follows:

1. How would you define listening?
2. What was your experience of the piece?
3. What were you listening to?
4. How do you think you were listening?
5. Did you notice anything unusual about what you were listening to?
6. Did you notice anything unusual about how you were listening?
7. Do you think you were listening the whole time?
8. If you weren’t listening what were you doing?
9. Do you think what you were doing when you weren’t listening was part of your experience of the piece?

10. What do you think was the meaning of what you were listening to?

These questions were devised with the aim of eliciting data to provide as thorough a description as possible of the listeners’ experiences of the pieces listened to, and to determine whether the artworks resulted in critical appraisal of listening by listeners in the experiencing of the works. To do so, the questions requested a mixture of generalised description of the participants’ experiences, and targeted descriptions of aspects of their experiences. Their aim was to determine whether the participants’ experiences contained:

- Critical engagement with the nature of what listening is;
- An experiencing of listening whose content and/or form was structured according to a critical argument regarding listening;
- Inference of the artwork’s critical argument or sentiment regarding listening, as interpreted by the artist.

Three possible forms, with differing levels of specificity and clarity, of experiencing critical engagement with listening, that may have been formed by the artwork.

Question 1: “How would you define listening?” was intended to elicit data referring to listeners’ understanding of what listening is, as a baseline by which to contextualise the listeners’ responses to the subsequent questions for the researcher, and for the listener themselves as a kind of warm-up exercise.

Question 2: “What was your experience of the piece?” was intended to elicit data referring to the participants’ experiences of the artworks, organised according to their own priorities and with their own emphases on the most important aspects of the experience to them. This data was expected to contain further description the participants’ understanding of what listening is, what sounds the listener judged to be relevant to attention, the kinds of acts of judgement the listener performed, the listener’s interpretation of the meaning or intent of the artworks, as well as any other information the participant may have felt to be relevant.
Question 3: “What were you listening to?” and question 5: “Did you notice anything unusual about what you were listening to?” were intended to elicit data focussed on what sounds the listeners judged to be relevant to attention, the content of their experiences.

Question 4: “How do you think you were listening?” and question 6: “Did you notice anything unusual about how you were listening?” were intended to elicit data focussed on the kinds of acts of judgement the listeners performed, the form of their experiences.

Question 7: “Do you think you were listening the whole time?” question 8: “If you weren’t listening what were you doing?”, and question 9: “Do you think what you were doing when you weren’t listening was part of your experience of the piece?”, were intended to return to eliciting data referring to the participants’ understanding of what listening is, from an inverted perspective, with the benefit of hindsight of their answers to the intervening questions.

Question 10: “What do you think was the meaning of what you were listening to?” was intended to focus on the listeners’ interpretations of the meaning or purpose of the artworks. It was also expected to be open ended enough to allow for return to what sounds the listeners’ may have judged to be relevant to attention, the kinds of acts of judgement the listeners’ performed, and the participants’ beliefs as to what constitutes listening.

I arrived at the questions referring to not listening because of a pair of informal showing/interviews I conducted with my supervisors Dr Roger Alsop and Dr Rob Vincs, on the subject of an early experimental work not included in the final exhibition. In these showings both participants reported boredom, and resultant engagement in other mental activities, when not listening to the sound.41

I arrived at the question requesting a definition of listening due to the situation mentioned early in the previous chapter, whereby I observed that in the literature, in particular that

41 Beyond the stated influence on the interview questions approved by the ethics committee, the data from these informal showing/interviews with Drs Alsop and Vincs has not been used here due to its lying outside the bounds of human ethics committee approved data collection. The piece concerned was Within History (Robinson, 2013), which I also presented as part of the 2013 VCA Graduate Research Symposium.
of listening studies; there is broad divergence in what people understand the term listening to mean. I wanted to record what understanding of listening formed the basis of the listener’s experiences with the artworks. The repetition of this question in particular after listening to each work, proved to elicit novel and unexpected results, in some cases producing a narrative of an evolving understanding of listening throughout the showing/interview process. Discussion of this phenomenon and other results are in the following chapter.

Interview context

Of the initial group, seven of the interviews took place at my home, two at the VCA Southbank campus, and one at the University of Melbourne Parkville campus. Before the interview, each participant received a plain language statement disclosing the general nature of the project. Each interview began with brief informal greetings, and signing of a participant agreement. The agreement informed participants of their rights in relation to the project, and allowed them to nominate whether: to be identified by name; to use a pseudonym; to receive a copy of the thesis; to be invited to public performances or exhibitions emerging from the project; and, to consent to outcomes of the research being published. All of the participants agreed to have their names used, and I refer to them by first names in the following chapter’s discussion of their experiences.

I recorded each interview to an SD card using a digital audio recorder. The card was stored locked in a secure cabinet, and I transferred copies of the digital files to my computer’s hard drive for evaluation, transcription, and analysis, and protected them with a password and hard drive encryption in accordance with university ethics guidelines.

The order chosen for showing the participants the pieces was:

1. *I'm here to listen*
2. *Sound, proof*

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42 See appendices for copies of the participant agreement and plain language statement presented to research participants.
3. Over hear
4. Memory walk

My initial plan for the showing/interview process was to show each participant the first piece, interview the participant about their experience of that piece, and then describe to participant my intent for that piece and my interpretation of its meaning or purpose, repeating this process for each of the remaining pieces successively.

At first, I intended to use this same process with all of the participants, however in the process of interviewing the initial five participants, I observed that they all appeared to be attempting to give a “right answer”. By my observations of verbal responses and body language, the participants’ efforts appeared to be focused on attempting to anticipate my description of the intent, and on waiting for some indication of the accuracy of their guess, seemingly colouring their descriptions of their experiences.

In an attempt to mediate this phenomenon, I made an alteration to the data collection design. I split the initially planned sample of ten participants into two sub-groups. The first group was of the initial five participants who I had interviewed after listening to each piece, and told the intent of each piece immediately after each interview. With the remaining five participants, I interviewed them after each piece, but told them the intent of all of the pieces at once, at the end of the overall showing/interview process.

In addition, I recruited one more participant – my principle supervisor Dr Roger Alsop – and told him the intent of the pieces before listening to each one. I chose to add Roger, and to use his unique perspective as someone intimately familiar with the works’ intent, to generate material for additional reflexive commentary on the effect of my interaction with the participants, and the effect of the position of the revelation of the works’ intent in the showing process, and on the participants’ responses.

As well as the audio recordings of the participants’ responses, immediately following the interview sessions I took written notes on any standout observations of listener’s responses, and of my own experiences of listening during the interview process.

Following completion of the data collection stage of the project, I set aside the interview
recordings for some weeks, to come to the participant’s responses, and my interactions with them, with fresh ears. During this time, I worked on sections of this manuscript.

Data evaluation

In addition to the interview data collection process, a data evaluation process was developed by which to distil listener’s descriptions of the experiences for comparison with the artwork’s intended orchestration of experience, also based on Moustakas’ model (1990).

Data evaluation process

According to Moustakas, a typical data evaluation process in heuristic research progresses as follows:

- Collect and organise recordings, and any notes taken during and immediately following the interview with a given participant.
- Become familiarised with the above-mentioned primary materials.
- Review the primary materials again and take notes, isolating key qualities and themes of the participant’s experience. From these notes, make an individual depiction of the participant’s experience, using his or her language as much as possible, showing the significance of the key qualities and themes noted.
- Check the individual depiction against the primary data. Check that it captures the key qualities and themes, and check with the participant that it accurately reflects their experience.
- Repeat the above process for the primary materials relating to each participant.
- Review the individual depictions, and isolate common qualities and themes that repeat across them. Develop a composite depiction including the common qualities and themes, exemplary narratives, comments, and descriptions.
- Select two or three participants whose experiences exemplify those of the group. Develop individual portraits of these exemplars.
Finally, produce the creative synthesis, interpreting the experiences of the participants in relation to the phenomenon and the researcher’s experiences in relation to the phenomenon in an aesthetic form.

This process produces internally validated – through self-checking – and externally validated – through checking with participants – descriptions of the experience in question, in this case the experience of apprehending the artworks of this project. I made refinements and additions to the data evaluation process, in the manner of the researcher’s review of participants’ responses, and in the character and role of the creative synthesis.

In reviewing the primary data, I engaged with in its primary state as much as possible – as audio recordings of conversations; and for the most part listened to rather than transcribed and read them. Firstly, so as be sure to engage with the participants’ own emphasis and cadence in their speech, and secondly so as to set aside any of my own urges to argue with their words as I became familiar with them, in the manner of the discursive listening recommended by Corradi Fiumara (1990).

The process of depiction, validation and composite depiction employed was much the same as set down in Moustakas’ method, and the composite depiction, using the participants’ own words as much as possible, is largely incorporated into the following data presentation and evaluation chapter. I used the depictions to evaluate the draft artworks’ success in achieving their intent, allowing for the creative synthesis.

The creative synthesis stage of this project’s process differs from that of mainstream heuristic projects. Rather than producing a new orchestration of experience – generally, a poetic representation of the participant’s experiences as is customary to heuristic research – the creative synthesis of this project takes the form of a re-working of the orchestrations of experience that constituted the initial artworks/stimuli that the participants engaged with. I based these re-orchestrations on the results of the artworks’ showings, and my evaluation of the experiences of the participants in relation to the artworks, and they are at the same time an iteration of the stimulus that preceded
generation of the data, an interpretation of the data, and a representation of that data’s commentary on the stimulus.

Artwork evaluation
In order to evaluate the draft artworks’ success in achieving their intent against listener’s descriptions of their experiences of them, the following were listened and looked for in the listeners’ accounts:

• Indication of awareness of, questioning of, uncertainty, or conflict in what the listener believed listening to be, as elicited by questions 1, 7, 8, and 9;
• Indication of awareness of, questioning of, uncertainty, or conflict in what the listener judged worthy of attention – the content of their experience, and the structure of this aspect of their experiencing of the artwork, as elicited by questions 2, 3 and 5;
• Indication of awareness of, questioning of, uncertainty, or conflict in how the listener experienced themselves to be listening – the form of their experience, and the structure of this aspect of their experiencing of the artwork, as elicited by questions 2, 4 and 6; and
• Similarity between the listener’s interpretations of the meaning or purpose of the piece as elicited by questions 2, 10, and the artist’s interpretation of the artwork’s meaning or purpose.

I interpreted heightened awareness of or conflict in what the listener believed to constitute listening as indicating the presence or formation of critical appraisal of what constitutes listening.

I interpreted heightened awareness of or conflict in what the listener was listening to – the content of listening, and how they experienced themselves to be listening to it – the form of listening, as indicating the presence or formation of critical appraisal of the experience of listening in the experience of the listener. In addition, I interpreted uncertainty and conflict in the content and form of listening to the artwork as indicating an experience structured as a critical argument relating to listening. Both are possible manifestations of
the manipulation of schemata as outlined in the rationale by which I justified the works as critiques of listening from the artist’s perspective.

Lastly, I interpreted similarity between the artist’s and the listener’s interpretations of the artwork’s meaning or purpose as indicating communication of the argument or idea underlying the artwork, from artist to listener.\(^{43}\)

**Summation**

In this chapter, I have described my methodology for producing sonic artworks structured as critiques of listening from the artist’s perspective. This consists of an approach to the use of creative methods that, through contrast or ambiguity in the contextualisation of sound, can invoke multiple types of listening and listening schemata, making them compete with or contradict one another. This contradiction or competition between listening-in-general’s component variations enacts an immanent critique of listening, (ideally) leading to critical evaluation of listening in the conscious awareness of the listener.

I have integrated this creative methodology with a research methodology for determining whether sonic artworks induce critical reflection on listening from the perspective of their listeners. This consists of an adaptation of the heuristic research method that, through a showing and interview/data collection process, and subsequent data evaluation and redrafting processes, can distil significant features of listener experience of the works, test their success in achieving their intent, and interpret findings to refine the works.

In the following chapter, I describe the practical application of this methodology. I discuss the structuring of experience, and critique of listening that each artwork intends to form. I recount the works’ showings, and my evaluation of the data to assess: whether the structuring of experience intended actually took place in the artworks’ being experienced by listeners; whether critical engagement with listening by listeners took place; and whether the critique of listening the artist had in mind was understood as the

\(^{43}\) This would make the artwork successful as non-cochlear sound art in the mould of Kim-Cohen.
artwork’s meaning or purpose by listeners. I also discuss reworking that has taken place because of the data evaluation, in the production of the exhibited versions of the works.
Chapter 3:
Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

With past critiques of listening, and a methodology for producing sonic artworks formulated to critique the act of listening established, I have been able to produce a series of artworks that are structured as critiques of listening from my perspective as an artist. In this chapter, I outline the showing process, I describe the works themselves, and I evaluate the participants’ descriptions of their experiences of them, to test the success of the artworks in achieving their intent, and to determine whether they resulted in critical engagement with listening by their listeners.

The tests of the success of the works’ intent occur on three levels:

1. The participants’ critical engagement with the concept of listening across the showing process: I interpret evidence of critical engagement with the concept of listening across the showing process as demonstrating stimulation of critique of the concept of listening in the listener.

2. The alignment of the content and form of the participants’ experiences of the works individually, with the intended content and form of experience: I interpret evidence of alignment between the intended and experienced content(s) and form(s) of experience as demonstrating that participants have been through an experiential process structurally equivalent to a given critique of listening.

3. The alignment of the participants’ interpretation of the meaning or purpose of the works individually, with the artist’s interpretation of the works’ meaning or
purpose: I interpret evidence of alignment of interpretations of meaning or purpose as demonstrating communication of a given critique of listening from the artist to the listener.

I begin by addressing the first test, discussing the works as a group, and the participants’ critical engagement with listening across the showing process overall, as monitored using the interview questions regarding listening’s definition.

Following the results of the first test, I then address each work individually. For each one I describe its inspiration, its realisation, its intended structuring of experience in terms of the content(s) and forms(s) of experience it sought to invoke, and my interpretation of its meaning or purpose. I then give an overview of the content(s) and form(s) of the participants’ experiences of the piece, and the meaning(s) or function(s) that they interpreted from it. I compare these experiences and interpretations with my intent, and determine the results of the second and third tests. Following the results of these tests, I discuss any reworking of the piece I undertook to improve its success in achieving its intent in the final publicly exhibited version. I repeat this process for each piece.

**Notes on the showing process**

I showed each of the eleven participants the works individually, interacting with me – the artist – one-on-one for the duration of the showing and interview process.

I showed the participants the artworks in the order:

1. *I’m here to listen*
2. *Sound, proof*
3. *Over hear*
4. *Memory walk*

My intent was to structure the works around the ideas of (respectively):

1. The intertwining of the roles of listener and sound producer;
2. Listening to sound, and listening for or without sound;
3. Listening, attention and spatial perception, and listening as editorial process;
4. Listening as perception and memory and imagination of the future.

Following the showing of each piece I conducted a short interview using the questions outlined in the previous chapter, immediately followed by setup and showing of the following piece in the set, repeated until the conclusion of the process. In conducting the interviews, I observed two unexpected phenomena regarding my own experience of listening: firstly, I found applying Corradi Fiumara’s dialectic listening surprisingly difficult, and had to suppress the urge to interject and respond to the participants comments in the course of describing their experiences. Secondly, I found the fact I was recording the interviews led me into moments of applying Adorno’s atomistic listening, as I knew I could control, and put off, my listening using the technology.

In hindsight, having had the participants listen to the artworks in a sequence constituted a potential problem for the collection of data on them. Showing the works in this way made it impossible to get a neutral reaction to each artwork on its own, as each one acted to contextualise the others, therefore making it difficult to judge the efficacy of the works as discrete items. On further reflection though, while this approach excluded gathering data on the works in isolation, showing them in a sequence did not constitute an unrealistic situation as far as how people experience art in the real world. People usually view artworks alongside other artworks – either spatially in a gallery, or temporally in a concert. Understood in this way, the ordering of the works’ showing was equivalent to curating a gallery exhibition, or programming a concert. It may have distorted the participants’ experiences to some extent, but it is unlikely to have done so in a manner alien to their native context.44

44 To further explore the ancillary phenomenon of the works’ co-contextualisation, future research could show these or similar works in isolation, and/or randomise the order of their showing.
Notes on responses

Although I took great care not to obscure the objectives of the questions asked – I attempted rephrasing the questions when participants expressed a lack of clarity on my part – many participants had great difficulty answering the questions about the form of their experiences: how they were listening.

4. How do you think you were listening?

6. Did you notice anything unusual about how you were listening?

On reflection, this is to be expected, questioning how one listens is not typical of the everyday experience of sound perception, and it is difficult to discuss something taken for granted. This difficulty exposes an assumption implicit in my interview design: that my participants’ would have had some pre-existing ability to reflect on how they listened. In practice, this was not necessarily the case. My assumption that participants would be able to articulate how they listened may have been incorrect, or there may have been flaws in my approach to eliciting data on this subject.\(^{45}\)

Assuming that the interview questions were adequately clear, the participants’ difficulty in articulating how they listened implies a lack of experience with, or ability to, discuss how one listens. This suggests a greater potential benefit in experiencing the artworks than originally expected. If ultimately successful in achieving their intent, inducing critical reflection on listening, and on how listeners listen, the works may have done more than feed an active critical faculty; they may have cultivated a latent one.

Because of the limited clarity of participants’ responses to the questions on how one listens, the type(s) of listening I assigned to their experiences were in some cases inferred by me from the object of their attention and attitude towards it. For example, in relation to I’m here to listen: reciprocal listening was inferred from participants talking about listening to another person and expectations of that person’s behavior; solitary listening was inferred

\(^{45}\)Future research on this problem could trial other strategies in the showing/interview process, to see if there are better ways to elicit data on the formal aspect of listeners’ experiences.
from participants talking about listening to no one. I then checked the accuracy of these
inferences with the participants, by emailing them excerpts of the interview transcripts
and my notes on them, and asking for corrections.

In my distillation and comparison of participant responses I also made some alterations
to exact word choice with regard to key concepts, in order to more easily make
connections across responses. I checked the veracity of all of these interpretations with
the participants as well.

As to the division of the participants into two groups of five, plus one supplementary
participant – those informed of my interpretation of the artworks’ meaning or purpose
after experiencing each work, those informed of it after the entire showing process, and
Roger, who was aware before listening to them – on analysis the difference in responses
between groups was negligible. The chief difference between the two main groups seems
to have been in their respective sense of ownership of their interpretations of the
artworks’ meaning; those informed of the intent at the end of the showing process
showed less interest in my interpretation of the artworks’ meaning or purpose.

The likelihood of correlation between my own and the participants’ interpretations of
meaning appeared no different between the groups, and their experience of the artworks’
structure, and their critical engagement with listening across the process seem to have
been much the same. The most striking difference relating to the placement of the
revelation of the artworks’ intent was in Roger’s experience of Over hear. His knowing
that there was an external loudspeaker from the outset of the work made his experience
of its structure markedly different from those of all the other participants; a factor
discussed in more detail in the section of this chapter devoted to Over hear.

**Critical engagement with listening across the showing process**
The first way the success of the works’ intent to induce critical engagement with listening
was tested, was by determining whether listeners engaged critically with what they
understood listening to be across the showing process. I used the first question asked
following the showing of each piece: “How would you define listening?” to generate the data for this test.

My expectation was that as each work’s intent focused on a particular aspect of listening, unique within the group of works, the participants’ responses to this question would vary and change focus with each recurrence; establishing, and from piece to piece monitoring, the participants’ ongoing understanding of and engagement with the concept of listening.

I did not state whether the question referred to listening within the specific context of the piece just experienced, or listening more broadly, as the participants’ interpretation of the question in this respect, and whether they would focus on the concerns of the piece just listened to (as they experienced them) without prompting, constituted part of the data sought.

**Responses**

In practice, most responses to this first question consisted of discussion of the concept of listening in overt relation to the work just experienced, or a combination of discussion of what listening is, along with general comments on the participants’ experiences of the work. Some participants made the relationship between their definition and the work so clear as to preface their responses with phrases like “just from the experience of this particular piece”. These factors indicate that most responses given to this question were in fact in direct relation to the artwork experienced immediately prior, and are reflective of any insights it may have facilitated.

The table below outlines the key concepts discussed by each participant in their definitions of listening, following listening to each piece.
Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

Table 2: Concepts in participant definitions of listening (verified)

<table>
<thead>
<tr>
<th>Participant</th>
<th>Artwork</th>
<th>Concept(s) in definition of listening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utako</td>
<td>I’m here to listen</td>
<td>Attention, Difference to hearing, Interpretation, Recognition, Understanding/comprehension</td>
</tr>
<tr>
<td></td>
<td>Sound, proof</td>
<td>Attention, Difference to hearing, Recognition, Reflex, Memory (previous experience)</td>
</tr>
<tr>
<td></td>
<td>Over hear</td>
<td>Spatiality</td>
</tr>
<tr>
<td></td>
<td>Memory walk</td>
<td>Temporality</td>
</tr>
<tr>
<td>David</td>
<td>I’m here to listen</td>
<td>Passive processing (one-way perception)</td>
</tr>
<tr>
<td></td>
<td>Sound, proof</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Over hear</td>
<td>Active processing, Memory, Identification, Interpretation, Temporality</td>
</tr>
<tr>
<td></td>
<td>Memory walk</td>
<td>Active processing, Temporality, Identification, Expectation, Memory, Interaction with visual perception</td>
</tr>
<tr>
<td>Jane</td>
<td>I’m here to listen</td>
<td>Context dependence, Passivity/activity, Levels of engagement, Emotion, Attention, Focus</td>
</tr>
<tr>
<td></td>
<td>Sound, proof</td>
<td>Suggestion, Attention (“tuning” in or out)</td>
</tr>
<tr>
<td></td>
<td>Over hear</td>
<td>Interaction with visual perception, Attention, Focus</td>
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<tr>
<td></td>
<td>Memory walk</td>
<td></td>
</tr>
<tr>
<td>Grace</td>
<td>I’m here to listen</td>
<td>Passivity/activity, Context dependence</td>
</tr>
<tr>
<td></td>
<td>Sound, proof</td>
<td>Reflex, Imagination, Interaction with visual perception</td>
</tr>
<tr>
<td></td>
<td>Over hear</td>
<td>Focus, Attention (“tuning” in or out), Choice/selectivity/willingness, Spatiality</td>
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<tr>
<td></td>
<td>Memory walk</td>
<td></td>
</tr>
<tr>
<td>Erin</td>
<td>I’m here to listen</td>
<td>Choice/selectivity/willingness, Difference to hearing, Understanding/comprehension, Attention (“tuning” in or out)</td>
</tr>
<tr>
<td></td>
<td>Sound, proof</td>
<td>Context dependence, Interaction with visual perception, Concentration, Interpretation</td>
</tr>
<tr>
<td></td>
<td>Over hear</td>
<td>Spatiality</td>
</tr>
<tr>
<td></td>
<td>Memory walk</td>
<td></td>
</tr>
</tbody>
</table>
### Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

<table>
<thead>
<tr>
<th>Character</th>
<th>Listening Attitude</th>
<th>Understanding/comprehension</th>
<th>Difference to hearing</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tania</td>
<td>I'm here to listen</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Sound, proof</td>
<td>Choice/selectivity/willingness</td>
<td>Focus</td>
<td>Interaction with visual perception</td>
</tr>
<tr>
<td></td>
<td>Over hear</td>
<td>Focus</td>
<td>Understanding/comprehension</td>
<td>Choice/selectivity/willingness</td>
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<tr>
<td></td>
<td>Memory walk</td>
<td>Interaction with visual perception</td>
<td></td>
<td></td>
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<tr>
<td>Meg</td>
<td>I'm here to listen</td>
<td>Outward behaviour (being silent)</td>
<td>Context dependence</td>
<td>Passivity/activity</td>
</tr>
<tr>
<td></td>
<td>Sound, proof</td>
<td>Difference to hearing</td>
<td>Active processing</td>
<td>Interpretation (making meaning)</td>
</tr>
<tr>
<td></td>
<td>Over hear</td>
<td>Attention</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Memory walk</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Damian</td>
<td>I'm here to listen</td>
<td>Focus (pinpointing)</td>
<td>Attention (foreground/background, direct/indirect)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sound, proof</td>
<td>Interpretation</td>
<td>Attention (foreground/background, direct/indirect)</td>
<td>Identification</td>
</tr>
<tr>
<td></td>
<td>Over hear</td>
<td>Expectation</td>
<td>Emotion</td>
<td></td>
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<tr>
<td></td>
<td>Memory walk</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dave</td>
<td>I'm here to listen</td>
<td>Passivity/activity</td>
<td>Context dependence</td>
<td>Levels of engagement</td>
</tr>
<tr>
<td></td>
<td>Sound, proof</td>
<td>Intention (listening for)</td>
<td>Interpretation</td>
<td>Context dependence</td>
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<tr>
<td></td>
<td>Over hear</td>
<td>Context dependence</td>
<td>Knowledge dependence</td>
<td></td>
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<tr>
<td></td>
<td>Memory walk</td>
<td>Interpretation (making sense)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cath</td>
<td>I'm here to listen</td>
<td>Outward behaviour (not interrupting)</td>
<td>Active processing</td>
<td></td>
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<tr>
<td></td>
<td>Sound, proof</td>
<td>Imagination</td>
<td>Focus (not being distracted)</td>
<td>Concentration</td>
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<tr>
<td></td>
<td>Over hear</td>
<td>Active processing (acknowledgement/thinking about the heard)</td>
<td>Difference to hearing</td>
<td>Spatiality</td>
</tr>
<tr>
<td></td>
<td>Memory walk</td>
<td>Emotion</td>
<td>Interpretation</td>
<td>Concentration</td>
</tr>
<tr>
<td>Roger</td>
<td>I'm here to listen</td>
<td>Reflex (surprise)</td>
<td>Difference to hearing</td>
<td>Attention</td>
</tr>
<tr>
<td></td>
<td>Sound, proof</td>
<td>Imagination</td>
<td>Interaction with visual perception</td>
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<td>Spatiality</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Memory walk</td>
<td>Passivity/activity</td>
<td>Attention</td>
<td></td>
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</tbody>
</table>
As can be seen from the table, across the entirety of the showing/interview process, for all of the participants their definitions of listening showed significant variation between responses. For ten out of the eleven participants this variation took the form of elaboration of their original statement throughout subsequent definitions, and for one participant – David – this variation took the form of an abrupt change in what he considered a fundamental aspect of listening.

To discuss in more detail: Utako, after experiencing *I'm here to listen* gave an initial definition of listening based on key concepts of attention, interpretation, recognition, comprehension, and difference to hearing. “Listening is very aural, it’s like hearing but listening requires some attention”; “it also involves interpretation to understand, recognise what you are listening to”; “it involves not only purely perceiving sound, but it also requires how you understand”. Following experiencing *Sound, proof* she supplemented this definition reflecting the key concepts of reflex, and memory. “Listening is again, require more attention than just hearing, and often you can pay attention to listen because you recognise something you know already, or extremely unfamiliar”; “so it is maybe related to your previous experience of hearing or listening to be able to actually listen to something”. After *Over hear*, she added spatiality, “also it’s, listening is spacious, spacious experience”; and after *Memory walk*, temporality, “it also has something to do with time, it has duration”.

Similarly Tania, after experiencing *I'm here to listen* gave an initial definition of listening based on key concepts of comprehension, interpretation, and difference to hearing. “Listening is a step beyond hearing, listening is beginning to comprehend, interpret and perceive what the other person is saying, so even if that means bringing in your own interpretation to what’s being said out into the space. For me hearing is just like sound, but listening is comprehension, meaning in sound.” Following experiencing *Sound, proof* she supplemented this definition reflecting the key concepts of selectivity, focus, and interaction of auditory and visual perception, context dependence, and levels of engagement. “It’s a selective process”, “the first box was an isolation of that sound and it made you very focused”; “you could visually focus you could read the thing saying this is this, ok, but then it kind of got flipped with the second box, it’s like, oh but maybe the sound is still there.” “Here it doesn’t even matter because it became background noise, because I was engaging in a different type of listening that wasn’t just this”; “this has highlighted degrees of listening.” After *Over hear*, she added willingness, “an openness, focus, and a willingness to engage, so that can mean
Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

comprehension”; and after Memory walk she returned to an emphasis on interaction of auditory and visual perception, “maybe easier with visual cues”.

David’s responses were exceptional in that he drastically revised his definition of listening over the course of experiencing the works. His first definition following I’m here to listen referred only to the key concept of passive processing: “[listening is] the passive processing of the auditory world”, and his manner and other comments throughout the first two interviews indicated he felt this as a strong conviction. Following Sound, proof David not only had no more to add to his earlier definition, but he pointedly rejected the implied contradiction to this position in Sound, proof. “I think that I don’t want to add anything to the definition of listening because I defined it as listening, I think that you could probably put like amendments to that but let’s just keep the definition because it’s a true dictionary definition let’s say.” (When discussing his experience of the piece) “It’s sort of suggesting to me that the author of this piece believes that listening is not as I defined it before – passive experience of sound – and it’s rather, it’s an interactive thing. But I don’t know this is kind of confronts me in that sense because I still believe that.” After listening to Over hear, upon observing the role of memory in the experience and perception of form in music – “it’s not passive in the sense that you’re constantly accessing memories” – David changed his definition of listening to one that included key concepts of active processing, memory, identification, interpretation, and temporality. “This is true listening in my idea of listening,” “I think I correctly identified it as some hard object”; “in the end there was some structure to it in the sense that these were slowly getting tighter over the time”; “it’s not passive in the sense that you’re constantly accessing memories of things around you and remembering.” “So far this challenged my idea of listening in the sense that I think that it’s a bit more participatory.” With Memory walk he added expectation, and interaction with visual perception, “I think this fits my redefined definition of listening … it’s still the perception of sound but then it’s also linked with memories of it”; “also what you expect the sounds will be because there’s a bit of that a bit of the way it reverses.” “There was a point to having a visual aspect to that and partially that was part of the trick of having it go backward.”

Not all participants elaborated their definition of listening across the entire showing process. As noted above, David made a point of not doing so following Sound, proof, and five of the participants – Jane, Grace, Erin, Meg and Damian – felt that they had no more to add to their definition of listening by the time they had listened to the final
piece: Memory walk. In her discussion of the piece’s meaning, one member of this group – Jane – felt that Memory walk was “about integrating several of the elements that the earlier pieces [elicited]”, and her reluctance to further revise her definition of listening seemed related to the impression that what had come before was being summed up, leaving nothing new to say. This impression may account for the lack of further elaboration of listening’s definition by some participants at this stage, however a solid conclusion cannot be drawn on this issue as comments in this vein were not made by all members of this group.

Despite some participants not revising their definition of listening on all repetitions of the question, as illustrated in the table above, all of the participants found new ways to describe listening, and new aspects of listening to discuss, across at least three-quarters of the process. This variation in concepts used to define listening demonstrates critical engagement with, and exploration of the concept of listening. The participants’ remarks referring to the artworks within their definitions of listening indicate a direct relationship between this critical engagement, and the experiences structured by the works.

By the standards of the first test of the works’ success – as eliciting critical engagement with the concept of listening across the showing process – the works as a set were successful. I now move onto the second and third tests of the works’ success – as structuring the content and form of experience as intended, and as eliciting an interpretation of their meaning or purpose similar to that held by the artist – in the context of each individual artwork.

**Works**

What follows are discussions of each work, in each case including a description of the implementation of the work as experienced by the participants, a statement of my interpretation of its meaning or purpose, and a description of the intended content(s) and form(s) of the listeners’ experience. Following the intent and implementation I give a description and analysis of the participants’ experiences of the work, testing the

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46 Tania, who did elaborate her definition of listening across all the interviews, made a similar comment that she felt Memory walk “leads on from the first one”, repeating earlier themes.
Chapter 3:

Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

formation of a critique of listening as a structuring of experience, and the communicability of a critique of listening as the interpretation of an argument or idea from that experience.

I test the work’s efficacy in structuring a specific set of content(s) and form(s) of listening, using data gathered by asking participants to describe their experience of the piece generally, and specifically in terms of what they listened to (content), and how they listened (form), evaluated against the intended content and form of listening experience. I test the work’s efficacy in communicating my interpretation of its meaning or purpose, using data gathered by asking participants what they felt the meaning of the piece was, evaluated against my interpretation. Following the results of the tests of each work’s success in achieving its intent, I discuss any alterations made in producing the final version of the work, as exhibited at the VCA Student Gallery in February 2015, in light of the research participants’ experiences.

The DVD accompanying this document contains audio-visual documentation of the works; these videos of the works can also be viewed at the web page:

http://camillerobinson.com/2015/06/09/listening-art-video-documentation/

The works utilised methods of sound organisation selected for their utility in carrying out the ideas upon which I based each given work. Working in this way, although appealing in its resolution of my research problem, was unfamiliar to me as someone whose creative practice and methods formerly centred on music.

The development of the project’s theoretical and methodological grounding, in clarifying my understanding of the kinds of experiences I needed to make in order to affect listening, helped me let go of musical sounds and musical listening. The need to focus on determining the types of sounds, and types of listening, necessary to the realisation of my
Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

ideas, forced me into a kind of creative epoché,\textsuperscript{47} setting aside my identity as a musician, and giving me a renewed perspective on sound, listening, and my practice.

As well as its primary intent, and as a nod to music among a group of sonic works that were not overtly musical, I used Over hear to experiment with the utility of music in affecting listening beyond the act of listening to music. As the data shows, in its draft version its musical aspect appears to have drawn attention away from the elements of the listening experience I was endeavouring to structure as my main intent; the participants seem to have perceived the sound in \textit{too musical} a way.\textsuperscript{48} In its publicly exhibited version, I altered the piece to mitigate this effect, and judging by informal feedback from visitors to the exhibition, this alteration was largely successful.

\textsuperscript{47} A term used in philosophy, to mean a moment of suspension of all judgement and belief, further elaborated with Husserl's phenomenological version of \textit{epoché} and the systematic \textit{bracketing} of judgements and beliefs (Husserl, 1913/2012).

\textsuperscript{48} See the previous chapter for discussion of non-musical perception of musical sound.
I’m here to listen

Figure 1: *I'm here to listen* as exhibited at VCA Student Gallery, February 2015

Inspiration

*I'm here to listen* (Robinson, 2014a) was inspired by the complexities exposed in the relationship between the roles and behaviours of sound producer and sound perceiver, by two commonplace situations I have experienced using telephones. Firstly, telephone conversations with extremely talkative partners in conversation where all I have been able to do is listen; my doubt as to whether the person at the other end was listening or just speaking; and my speculation as to whether my partner in conversation would notice if I stopped making sounds that cued my listening. Secondly, my experiences of being put on hold for extended periods, and wondering whether despite the evidence that there was no other person on the line listening, whether there might be, the question of how I could know if they were, and the temptation to speak into the void of silence or muzak confronted when put on hold.
Realisation

As shown to the research participants, *I’m here to listen* consisted of a simple Max patch that played back a two channel audio recording: one channel through a telephone receiver attached to the computer on which the program was running, and one channel through a small speaker concealed in an adjacent room, streamed from the computer via Bluetooth.

Figure 2: *I'm here to listen* Max patch

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49 Max patch: term commonly used to refer to programs made in the MAX/MSP programming environment.
As the participants experienced the piece, displayed on the computer’s screen were the following instructions:

I'm here to listen

pick up the phone

press the spacebar

feel free to have a conversation

Figure 3: I'm here to listen draft version instruction screen

The participants triggered playback of the recording by picking up the phone receiver and pressing the spacebar on the computer keyboard. The recording was of a phone ringing, a person answering the phone, saying the phrase “I'm here to listen”, followed by approximately four minutes of silence, and then the phone being hung up.

The recording was made from the perspective of both ends of an actual phone call, and the playback through the handset and concealed speaker setup were intended to simulate the original circumstances of this call as closely as possible. I meant the setup to give listeners the impression that by pressing the button they were making a call to an actual person, who picks up and answers. I then meant the status of the sound at the other end of the line as a person who is listening to be brought into question by the subsequent extended silence, and be made further ambiguous by the impression of the person hanging up on the participant at the piece’s conclusion.
At the showings of the draft versions of the works, I introduced *I’m here to listen* by instructing the participant to follow the instructions on the screen, to be patient, and that I would let them know when the work was over. I then left the room, leaving the participant alone with the work, returning at its conclusion and commencing the first interview of the showing process.

**Intended structuring of content and form of listening**

In experiencing *I’m here to listen*, my expectation was that initially listeners would experience the impression of being on the phone with and listening to a person; this was the initial expected content of listening: *what* sound is listened to. Given the impression of a person being on the other end of the line, I expected listeners to engage in a *reciprocal* kind of listening, as is engaged in during conversation; this was the initial expected form of listening: *how* sound is listened to.

Over the progression of the piece, my expectation was that listeners would try to initiate conversation, or wait for the person at the other end to initiate it. As they found the person on the other end unresponsive, I expected listeners’ impression to change to one of being alone, and of listening to something other than a person, due to a loss of, or doubt in, the belief in the existence of the person on the other end of the phone and of listening to them. This was the subsequent expected content of listening: *what* sound is listened to. Given the impression of being alone, I expected listeners to engage in a *solitary* kind of listening; this was the subsequent expected form of listening: *how* sound is listened to.

As outlined in the previous chapter, in order to structure a critique of listening in the experiencing of an artwork, *I’m here to listen* used a change or ambiguity in the context of the listened to – in this instance a change from belief in a partner in conversation and in their listening, to loss or doubt in that belief. It used this uncertainty to engage multiple types of listening and place them in conflict, thereby producing critical examination of each in light of the other.
Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

For the artwork to have been successful on the level of structuring experience as critique, the participants’ descriptions of the contents and forms of their experiences throughout the duration of the work had to align with the expected contents and forms described above.

**My interpretation of the work’s meaning or purpose**

My interpretation of the meaning or purpose of *I’m here to listen* was as a demonstration of the active nature of listening, and of the interwoven nature of the roles of perceiver and maker of sound: that for a person to be known to be listening requires that they produce sound.

For the work to have been successful in communicating my interpretation of its meaning or purpose, the listener’s interpreted meaning or purpose had to contain comments that reflected my above statement, using concepts of listener behaviour, speaker behaviour, and the relationship between them, and concepts referring to critical thought and listener agency.

**Experienced structuring of content and form of listening**

In their descriptions of experiencing *I’m here to listen*, all of the participants referred to the expectation of listening to and being listened to by another person, matching the expected initial content of listening. In doing so, they also described experiences of reciprocal listening, or of listening to sound in a way that implies it, in connection to a belief or suspension of disbelief in the existence of a person on the other end of the phone line, matching the expected initial form of listening. Utako “expected to listening to someone else talking to me”, David was “listening constantly to see if there actually anyone really is listening”; and for Erin: “initially I was trying to listen for a voice or a sound to signify that there was someone on the other end of the phone”.

The table below collects my evaluations of the participants’ initial experienced content(s) and form(s) of listening. This text is the same as that in the reports sent to the participants, and verified by them.
Table 3: Initial content and form of experiencing *I'm here to listen* (verified)

<table>
<thead>
<tr>
<th>Participant</th>
<th>Content</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utako</td>
<td>At the beginning of Utako’s experience of the piece she expected to be listening to another person talking to her, and to be listened to, “expected to listening to someone else talking to me”.</td>
<td>This belief suggests that Utako was attempting to engage in the reciprocal form of listening that accompanies conversation.</td>
</tr>
<tr>
<td>David</td>
<td>Early in David’s description of his experience of the piece, he states he was “listening constantly to see if there actually anyone really is listening”.</td>
<td>This statement suggests that David entertained the belief in the existence of a person on the other end of the phone, and suggests that David was attempting to engage in a reciprocal form of listening as might accompany conversation, with this person.</td>
</tr>
<tr>
<td>Jane</td>
<td>Early in Jane’s description of her experience of the piece, she states “I wasn’t sure if you were listening on the other end or whether I was completely alone in the room”. This indicates an ambiguity of belief in the existence of someone listening to her on the other end of the phone, although statements like “it’s more of a monologue” suggest a loss of that belief. With this ambiguity, given Jane’s reference to conducting a monologue and therefore moments of non-belief in the person on the phone, I am going to infer that there were moments of belief and non-belief.</td>
<td>Jane’s moments of belief in the person on the phone suggest an attempt at engagement in a reciprocal form of listening as might be expected to accompany conversation.</td>
</tr>
<tr>
<td>Grace</td>
<td>Grace’s experience of the piece seems to have been coloured by disbelief in the existence of a person on the other end of the phone, although statements like “I kind of felt compelled to say things to try and prompt something” imply that there were moments where she believed there was something or someone to “prompt something” from.</td>
<td>These moments of belief in something or someone suggest an attempt at engaging in a reciprocal form of listening as might accompany conversation.</td>
</tr>
<tr>
<td>Erin</td>
<td>In Erin’s words “initially I was trying to listen for a voice or a sound to signify that there was someone on the other end of the phone”, demonstrating that early in her experience of the piece Erin believed in the existence of the person on the other end of the phone line.</td>
<td>This belief suggests that Erin was attempting to engage in a reciprocal form of listening as might be expected to accompany conversation.</td>
</tr>
<tr>
<td>Tania</td>
<td>The earlier part of Tania’s experience of the piece seems to have been coloured by ambiguity as to the belief or disbelief in the existence of the person at the other end of the phone line “it made me question as to first of all is someone really listening on the other line”.</td>
<td>Moments of belief during this ambiguous period would presumably have been accompanied by attempts at a reciprocal form of listening as used in conversation, further implied by Tania’s statement that “I was listening for something that I would say is human, like breathing”. A more solitary form of listening would presumably have accompanied moments of disbelief.</td>
</tr>
<tr>
<td>Meg</td>
<td>In Meg’s experience of the piece, she appears to have committed herself if not to belief in the person at the other end of the phone, then to the suspension of disbelief. “I feel as though it was sort of an opportunity to be listened to unconditionally, if that was wanted, so like if someone wanted to. They had the opportunity to say whatever they wanted to without judgement”.</td>
<td>This commitment, and her statement implies that for the majority of the piece Meg was engaged in a reciprocal form of listening as used in conversation, although Meg also reports that she was listening to the ambient sounds around her such as the clock with intense clarity, implying moments of solitary listening.</td>
</tr>
<tr>
<td>Damian</td>
<td>Early in the piece Damian appears to have expected to engage with an actual person on the phone, and held the belief in the existence of that person. “I think initially I was … listening to a conversation on the phone, but sort of, yeah sort of a two way communication. Two way sort of street, but also yeah I was hearing”.</td>
<td>This belief suggests that during these moments of the piece Damian engaged or attempted to engage in a reciprocal form of listening as might be expected in conversation, with the person on the phone.</td>
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</tbody>
</table>
Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

<table>
<thead>
<tr>
<th>Participant</th>
<th>Content</th>
<th>Form</th>
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<tbody>
<tr>
<td>Dave</td>
<td>Dave’s experience of the piece in terms of belief or disbelief in the existence of the person at the other end of the phone seems to have been ambiguous. “I didn’t know whether anyone was listening to me”. Although Dave seems to have devoted a lot of energy to trying to detect evidence of someone being there, and to have focused his attention closely on the phone. “Well I was listening, like now I can hear all the background noise outside but I wasn’t focusing on that at all I was listening to see if there was somebody on the phone, like I was trying to gather what was on the other end of the line if anything at all I think”. This ambiguity suggests Dave experienced moments of both belief and disbelief in the existence of the person on the phone during his experience of the piece.</td>
<td>Dave’s moments of belief in the existence of the person on the phone suggest the attempt at engagement in the reciprocal form of listening associated with conversation with another person.</td>
</tr>
<tr>
<td>Cath</td>
<td>In Cath’s experience of the piece there were moments when “I was expecting to hear something” but “I was listening to nothing”, “I was expecting a sound, so I was kept waiting”, suggesting that during parts of the piece Cath held the belief in the existence of the person at the other end of the phone.</td>
<td>These moments of belief suggest the attempt at engagement in the reciprocal form of listening that might be associated with conversation.</td>
</tr>
<tr>
<td>Roger</td>
<td>Early in the piece Roger seems to have held the belief in the person at the other end of the phone line “I’m not sure if you were or weren’t but it sounded like you were actively about to engage in a conversation with me”.</td>
<td>This belief suggests engagement in the reciprocal form of listening the might be associated with conversation.</td>
</tr>
</tbody>
</table>

All of the participants also showed evidence of coming to listen to something other than a person on the phone, matching the subsequent expected content of listening. They showed evidence of experiencing solitary listening in connection to a loss of or doubt in the belief in the existence of the person at the other end of the phone, matching the subsequent expected form of listening. David: “I don’t think you really believe, after five seconds anyone is”[listening]. Erin: “when I couldn’t hear that I felt like I should say something so then I guess that I was listening to my own voice. And then when got sick of listening to my own voice for a second then I started listening to things that I wouldn’t usually be listening to like, the sound of a light or, the clock”. Damian: “there was no one on the other, well no one talking on the other side”.

The table below collects my (verified) evaluations of all of the participants’ subsequent experienced content(s) and form(s) of listening.
Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

Table 4: Subsequent content and form of experiencing *I am here to listen* (verified)

<table>
<thead>
<tr>
<th>Participant</th>
<th>Content</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utako</td>
<td>In Utako’s words, her expectation of interacting with another person was &quot;betrayed&quot;, and as she became &quot;more confident in just talking&quot; she was left listening to her own thoughts, voice, and words.</td>
<td>By her own words Utako was &quot;uncertain how to even have a conversation&quot;, and &quot;how to listen&quot;. This suggests that Utako was experiencing change, or an ambiguity, in the way in which she was listening, from the reciprocal form expected in conversation, to another more solitary form. At the end of the piece when the phone hung up, Utako was unsure again if there had been a person listening.</td>
</tr>
<tr>
<td>David</td>
<td>In David’s own words this belief was quick to disappear, on whether someone was listening at the other end of the phone: &quot;I don’t think you really believe, after five seconds anyone is&quot;, and &quot;after about ten seconds I was listening to the sound of my own voice&quot;.</td>
<td>This change in focus towards listening to his own voice, and as he also describes the ambient sounds around him such as the clock, rain, and an alarm outside, suggests that David experienced a change in the way in which he was listening, from the reciprocal form expected in conversation, to another more solitary form.</td>
</tr>
<tr>
<td>Jane</td>
<td>Early in Jane’s description of her experience of the piece, she states &quot;I wasn’t sure if you were listening on the other end or whether I was completely alone in the room&quot;. This indicates an ambiguity of belief in the existence of someone listening to her on the other end of the phone, although statements like &quot;it’s more of a monologue&quot; suggest a loss of that belief. Within this ambiguity, given Jane’s reference to conducting a monologue and therefore moments of non-belief in the person on the phone, I am going to infer that there were moments of belief and non-belief.</td>
<td>Jane’s moments of disbelief in the person on the phone suggest engagement in a more solitary form of listening, listening to her own voice, traffic, the clock, and white noise on the phone.</td>
</tr>
<tr>
<td>Grace</td>
<td>During the rest of her experience of the piece, dominated by disbelief in the existence of the person on the phone, Grace’s experience was also strongly coloured by nervousness as to what to do as she was “waiting, like, for something to happen”. During this time &quot;I was just was too concerned with what I was saying to think that someone was actually actively listening&quot;.</td>
<td>Grace’s periods of disbelief in the existence of person at the other end of the phone suggest that she was engaged in a more solitary form of listening during these times.</td>
</tr>
<tr>
<td>Erin</td>
<td>Further in her own words: &quot;and then when I couldn’t hear that I felt like I should say something so then I guess that I was listening to my own voice. And then when got sick of listening to my own voice for a second then I started listening to things that I wouldn’t usually be listening to, the sound of a light or, the clock. And then, matching up the ticking of the clock with the radio clock, and just listening to the consistency of the sounds coming from the room&quot;. This statement implies a loss of or doubt in the belief in the person at the other end of the line, and a shift to listening to herself and the sounds in her environment.</td>
<td>This loss or doubt in the existence of the person on the phone suggests a change in Erin’s listening from a reciprocal, conversational form, to a more solitary form of listening.</td>
</tr>
<tr>
<td>Tania</td>
<td>Later in Tania’s experience of the piece, she appears to have let go of the idea of the person being there as irrelevant &quot;I think the bigger question was why would it make a difference if someone is actually listening or if someone is not listening&quot;.</td>
<td>This line of thought appears to have led Tania to commit to a solitary form of listening, or as she argues perhaps not listening at all &quot;I wouldn’t say that was listening other than listening to myself talk&quot;, for the remainder of the piece.</td>
</tr>
<tr>
<td>Meg</td>
<td>In Meg’s experience of the piece, she appears to have committed herself if not to the belief in the person at the other end of the phone, then to the suspension of disbelief. “I feel as though it was sort of an opportunity to be listened to unconditionally, if that was wanted. So like if someone wanted to, they had the opportunity to say whatever they wanted to without judgement&quot;.</td>
<td>This commitment, and her statement implies that for the majority of the piece Meg was engaged in a reciprocal form of listening as used in conversation, although Meg also reports that she was listening to the ambient sounds around her such as the clock with intense clarity, implying moments of solitary listening.</td>
</tr>
</tbody>
</table>
# Data evaluation

What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

<table>
<thead>
<tr>
<th>Participant</th>
<th>Content</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Damian</td>
<td>Damian appears to have lost the belief in the person on the phone. “There was no one on the other, well no one talking on the other side”, and to have directed his attention elsewhere with great intensity “the sound in the background, the siren or someone beeping a horn, just sounded very full on, more than usual as well, suddenly that background noise kind of came to the foreground”. This disbelief suggests that during these moments of the piece Damian was engaged in a more solitary form of listening.</td>
<td></td>
</tr>
<tr>
<td>Dave</td>
<td>Dave’s experience of the piece, in terms of belief or disbelief in the existence of the person at the other end of the phone seems to have been ambiguous. “I didn’t know whether anyone was listening to me”. Although Dave seems to have devoted a lot of energy to trying to detect evidence of someone being there, and to have focused his attention closely on the phone. “Well I was listening, like now I can hear all the background noise outside but I wasn’t focusing on that at all I was listening to see if there was somebody on the phone, like I was trying to gather what was on the other end of the line if anything at all I think”. This ambiguity suggests Dave experienced moments of both belief and disbelief in the existence of the person on the phone during his experience of the piece. Dave’s moments of disbelief in the existence of the person on the phone suggest engagement in a more solitary form of listening.</td>
<td></td>
</tr>
<tr>
<td>Cath</td>
<td>After a while Cath let go of this belief “and then it was like ‘oh, this is it’”, “the nothing made me think ‘oh no, that’s ok, it’s quite nice to hear nothing’”, and directed her attention to the sounds in the environment around her “the clock and the aeroplane are the things I can remember hearing”. These moments of disbelief suggest engagement in a more solitary form of listening.</td>
<td></td>
</tr>
<tr>
<td>Roger</td>
<td>Roger appears to have let go of this belief at some stage during the piece, or at least to have directed his attention elsewhere, to music that occurred in the next room, and he describes a greater attention to environmental sounds. For some participants this change was a linear process, successively experiencing a reciprocal state then a solitary state, rapidly and early in the duration of the piece as in the experience of David: “after about ten seconds I was listening to the sound of my own voice”. Alternatively, more gradually as in the experience of Cath: “I was expecting a sound, so I was kept waiting”, “and then it was like ‘oh, this is it’”, “the nothing made me think ‘oh no, that’s ok, it’s quite nice to hear nothing’”.</td>
<td></td>
</tr>
</tbody>
</table>

An exception to the pattern of a loss of belief in the person at the other end was Meg. She experienced solitary listening but only as a result of distraction, and showed no evidence of loss of belief “it was sort of an opportunity to be listened to unconditionally”, “just purely someone else on the other end listening to them”, or at least a committed suspension of disbelief.

For some participants this change was a linear process, successively experiencing a reciprocal state then a solitary state, rapidly and early in the duration of the piece as in the experience of David: “after about ten seconds I was listening to the sound of my own voice”. Alternatively, more gradually as in the experience of Cath: “I was expecting a sound, so I was kept waiting”, “and then it was like “oh, this is it””, “the nothing made me think “oh no, that’s ok, it’s quite nice to hear nothing””.
For others the experience was more ambiguous, drifting between and around the two expected forms of listening as in the experience of Jane: “I wasn’t sure if you were listening on the other end or whether I was completely alone in the room. So that changes if you’re just sitting in a room talking to yourself with the idea of someone being there and you’re not sure”. Also Tania: “it made me question as to first of all is someone really listening”, “I think the bigger question was why would it make a difference if someone is actually listening or if someone is not listening”. Again, while related, Meg’s experience presents an exception in this regard, having experienced a steady state of belief or suspension of disbelief, with moments of distraction.

In all cases, the participants experienced the forms of listening as intended, and all of the participants besides Meg experienced the intended contents. By this test of the artwork’s intent, it was successful for the majority of participants in structuring the experience of listening as intended.

**Interpreted meaning or purpose**

Very few of the participants responded to the question of the work’s meaning or purpose with a statement closely analogous to that used above by me. Utako’s reference to “the psychology of a listener and a speaker”, Jane’s statement on “how important it is to have audio feedback when you’re having a conversation”, and Tania’s description of it as an “exploration and analysis … of what an engaged listener looks like” come close to that purpose. However, in the majority of cases when asked to distil their experience of the piece in this way, each of the participants’ interpretations and emphases were unique to them.

Nevertheless, despite the disparities between my interpretation of the meaning or function and the participant’s responses in the majority of cases, many of the concepts used in the participants’ descriptions of their interpretation of the piece’s meaning did align with those put forward by me, and were largely consistent across the sample.

The table below collects excerpts of the participants’ comments on the meaning or purpose of the work, and the key concepts within those comments, again these are as sent to the participants for verification, which was received from all involved.
Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

Table 5: Interpreted meaning or purpose of I'm here to listen (verified)

<table>
<thead>
<tr>
<th>Participant</th>
<th>Discussion of meaning/purpose</th>
<th>Concepts in meaning/purpose</th>
</tr>
</thead>
</table>
| Utako       | “My interests in my life in general, it usually not interesting for others …very personal interpretation”  
“By not being able to have a conversation, I was constantly questioning what is the meaning of conversation”  
“How the psychology of a speaker and listener, and, is very, was very, kind of very much what I was thinking too”  
“The reason why people have conversations”  
“The role of silence”                                                                                                                                                                                                 | Her behaviour/role as a speaker  
Questioning  
Meaning of conversation  
The behaviour/role of a listener  
The behaviour/role of a speaker  
Motivations of conversation  
Dealing with silence  
Absence of interaction                                                                                                                                                                                                 |
| David       | “It was to get me to explore my own notions of listening, To see how well I, I guess I listen when being told to listen to something without actually knowing what that something is”  
“And in the end I guess I ended up listening to my own thoughts more than the external world”                                                                                                                                                 | Exploration  
The meaning of listening  
His behaviour/role as a listener  
Quality of listening  
His behaviour/role as a listener  
What is listened to  
Dealing with silence  
Absence of interaction                                                                                                                                                                                                 |
| Jane        | “I had no meaning it was an empty space so I got to fill it with whatever I brought to it, it was inherently devoid of meaning”  
“Reflecting on how a conversation or an interaction with somebody happens and then how important it is to have audio feedback when you’re having conversation whether it’s down the line or in person, and without that because of the silence its sort of almost impossible to have, there is no conversation, it just dwindles off. It’s not very enjoyable, it sort of takes you out of being present in the space” | The absence of meaning  
Reflection  
The behaviour/role of a speaker  
The behaviour/role of a listener  
Dealing with silence  
Absence of interaction                                                                                                                                                                                                 |
| Grace       | “Maybe to try and understand, obviously the way humans deal with the absence of sound”  
“Maybe it was to get me to initiate a conversation”                                                                                                                                                                                        | Dealing with silence  
Understanding  
Her behaviour/role as a listener  |
| Erin        | “That traditionally when you answer a phone you expect to hear a voice, and when you don’t hear that then it makes you feel, I don’t know what the right word would be. Not uncomfortable but just a bit sort of more on edge because, what traditionally would happen isn’t, and then you question what the meaning of the pause is, and then, yeah you start listening to other things after that because you kind of, not figure it out but you try and, listen to other things if it’s about listening” | Her behaviour/role as a listener  
Questioning  
What is listened to  
Emotional discomfort  
Absence of interaction                                                                                                                                                                                                 |
| Tania       | “I’d shy away from say a universal meaning of some sort, but for me I’d say like an exploration and analysis of how you. What an engaged listener looks like, or what does it behave like, and what does it feel like, even if it is uncomfortable or even if it is this or this or that, I mean it’s all part of it” | Her behaviour/role as a listener  
Exploration  
Emotional discomfort  |
| Meg         | “I’m not sure if it was the intended meaning but I feel as though it was sort of an opportunity to be listened to unconditionally, if that was wanted. So like if someone wanted to, they had the opportunity to say whatever they wanted to without judgement, or without any sort of feedback, just purely someone else on the other end listening to them, which doesn’t always happen in day to day life” | Her behaviour/role as a speaker  
The behaviour/role of a listener  
Unconditional listening  
Absence of interaction  |
| Damian      | “Coming back to it I think what I originally said, probably hearing stuff in the background as well, that’s a bit more, that sort of basically. Sort of the role shifted so you know the stuff you would normally hear in the background came into the foreground, and probably with my sense picking up, you know, a few things that I wouldn’t have done before, well you know in this type of scenario I think”  | His behaviour/role as a listener  
Dealing with silence  
What is listened to  
Quality of listening  |
| Dave        | “I think the, the experience that I already talked about, how after a little while I just realised that it was, even though I didn’t know who I was talking to or whether I was being, you know, amplified in front of thousands of people, whether it was, whether it was or you know, I didn’t know whether anybody was listening or nobody was listening, because of the, because of my conditioning it was easier just to talk, than not to talk, I felt more comfortable, that was the biggest thing I took away from it” | His behaviour/role as a speaker  
Realisation  |
Chapter 3: Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

<table>
<thead>
<tr>
<th>Participant</th>
<th>Discussion of meaning/purpose</th>
<th>Concepts in meaning/purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cath</td>
<td>“To try and understand what listening is, not just maybe hearing something, but to concentrate on the sound that I was hearing or not hearing, like to actually tell myself that ‘oh there’s that’ and not just it’s not just all one thing it was, it started to separate”</td>
<td>The meaning of listening</td>
</tr>
<tr>
<td></td>
<td>“I think it was, not a test that’s the wrong word, but I think it is actually teaching, made me think about actually listening, and I like that, yeah it was a good thing, it, I stopped distracting myself and actually started concentrating”</td>
<td>Understanding</td>
</tr>
<tr>
<td></td>
<td>“I really enjoyed it, and it’d be a nice thing to do more often, yeah it really would. Where you actually put yourself in a situation or someone said ‘here, sit here, have a listen’ and it’s almost like a bit of a trick where you’re like ‘oh, oh yeah maybe that’s not, maybe this is it’ you know, and I found it really quite peaceful in a way”</td>
<td>Learning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Her behaviour/role as a listener</td>
</tr>
<tr>
<td></td>
<td></td>
<td>What is listened to</td>
</tr>
<tr>
<td>Roger</td>
<td>“I don’t think it had a, an overt extra meaning, I think the piece didn’t, while there’s clearly a very well articulated and understood idea within it from the composer’s position, that isn’t overtly expressed in the piece. So, and there doesn’t seem to be a requirement of the piece that the listener agree with that, or even engage with that, or even be cognizant of that, which was kind of nice actually, and that fits very much with my personal aesthetic of very much enjoying abstract art just because, and action art. Those sorts of visual things, and an improvisation which is, like a sound improvisation which doesn’t necessarily try to express an idea outside of itself, so it’s. The meaning is inherent within it, it’s like its own language and its own word, so yeah, I don’t think it had a meaning which can exist outside of itself, or be articulated outside of itself, or the experience of the piece actually”</td>
<td>The absence of meaning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The behaviour/role of a speaker</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The behaviour/role of a listener</td>
</tr>
</tbody>
</table>

Most significantly for the test of the piece’s success in this regard, all of the participants’ discussions of the meaning or purpose of the piece contained comments on the key concepts of listener behaviour, speaker behaviour, or both, referring to their own behaviour and that of the person on the other end of the phone line.

David, Erin, Tania, Damian, and Cath all discussed their own behaviour as listeners, including the act of listening without a defined object, listening to one’s own thoughts, the effect of emotional discomfort on one’s behaviour as a listener, what constitutes the behaviour of an engaged listener, situational alteration to the quality of listening applied, and learning new listening behaviours.

Utako, Grace, Meg and Dave all discussed their own behaviour as speakers, including their effect on the listener on the phone, expectations of speaker behaviour, being allowed unconditional space to speak, and the conditioned pressure to speak to fill silence.

Utako, Jane, Meg and Roger discussed the behaviour of listeners and speakers in general, including consideration of the psychological basis and motivations of what constitutes a listener and a speaker. Also, the importance of audio feedback in being able to maintain
either role of listener or speaker, unconditional listening, and the construction of the meaning of the piece in the process of listening and speaking within it.

Significantly, to the test of the work’s success in communicating its meaning or purpose, the majority of participants’ discussions of its meaning or purpose contained use of concepts describing critical or exploratory processes in reference to the artwork’s meaning and their behaviour and experience as listeners and speakers. These include: questioning, exploration, reflection, understanding, realisation, and learning.

Besides those expected, the participants also used the following concepts prominently in their discussions of meaning: David, Erin, Damian and Cath discussed unusual objects of listening, such as thoughts and environmental sounds; David and Damian discussed the quality of their listening; and Utako, David and Cath discussed the examination of the meaning of listening, and of conversation.

In all cases, the participants’ discussion of the piece’s meaning or function referred to the intended key concepts of listener and speaker behaviour, and of critical or exploratory processes; on the level of communication of key concepts, the piece may be considered to have been successful. As for communication of my interpretation of the artwork’s meaning or function, the data indicates that communication of meaning or function to a listener with a fair degree of clarity may be possible as occurred in the cases of Utako, Jane, and Tania. However, there is no indication that it will occur in the majority of people who listen to this piece.

Judging by the experiences of the participants who listened to the piece, from person to person I’m here to listen elicited no single consistent clear meaning or function. What it did appear to do overall was stimulate critical thought about the behaviour and roles of listeners and speakers, with the emphasis of this thought being dependent on the inclinations of the individual person listening.
Reworking

This piece, in its initial form, was for the most part successful in structuring experience as intended, and in communicating the key concepts of interest. It had its least success in communicating an exact argument or sentiment from artist to listener. Had the artwork been more successful in communicating my interpretation of its meaning or purpose, it may have made for an interesting result; however, its lack of success as a means of literal communication by no means detracts from the artwork as an aesthetic experience. For those whose tastes the artwork fit, by all reports it was a pleasing and very meaningful experience.

I was happy overall with the successes of the piece, and made no major revisions for its publicly exhibited version. The only alterations I did make were to refine the illusion of speaking to a real person, to attempt to prolong the experience of the initial reciprocal listening state. I did this by concealing the computer, therefore concealing it as a likely source of the sound. I replaced the instruction and control elements of the computer's use with a printed instruction card placed on the table next to the handset, and a purpose built control button to trigger playback.
Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

Sound, proof

Figure 4: Sound, proof as exhibited at VCA Student Gallery, February 2015

Inspiration

Sound, proof (Robinson, 2014d) was inspired by Morris’ Box with the sound of its own making (Morris, 1961), a landmark work in the history of conceptual art, sound art, and sound sculpture. More specifically, it was inspired by my own personal experience of Box with the sound of its own making, or rather lack of direct experience of it. I have never experienced Morris’ Box in person, only imagined it from descriptions I have read. Despite having only experienced it in my imagination, it still exists for me as a vivid, meaningful artwork, that has a sound,^{50} and this fact led me to think about making my own box, whose sound couldn’t be heard.

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^{50} Incidentally, this state of being a perfectly valid and existent artwork without having to be physically manifested makes Box with the sound of its own making a prototypical conceptual artwork by most definitions.
Recognising an element of Schrödinger’s cat in this idea, and the possibility that any sound, or no sound, could exist inside a soundproof box with equal probability, I decided to make the work as a group of boxes, labelled as containing a variety of sounds, presented as a series. \textit{Sound, proof} begins with a relatively direct (although punning on re-processing the idea in its cardboard construction) homage to Morris’ box, to a \textit{Soundproof box with the sound of its own making}, to other soundproof boxes containing sounds that may or may not be present, and that may be elicited with relative ease in a listeners’ imagination either way.

In the realisation of this piece, I kept the influence of Morris’ work overt. As an homage to Morris; as an expression of my preferred aesthetic of rough simplicity; and to engage with Morris’ intent with his work – to show the art in the process of making an artwork – and compare it to mine – to show the art in the process of experiencing an artwork.

\textbf{Realisation}

As shown to the research participants, \textit{Sound, proof} consisted of a series of small cardboard boxes arranged in a line, with paper labels placed in front of them describing their contents, real or nominal; the first box (\textit{box with the sound of its own making}) containing a smartphone playing back an audio recording of the box’s construction.

The boxes’ labels, in the order shown from left to right were:

- \textit{Box with the sound of its own making};
- \textit{Soundproof box with the sound of its own making};
- \textit{Soundproof box with the sound of a construction site};
- \textit{Soundproof box with the sound of a busy freeway};
- \textit{Soundproof box with the sound of wind outside};
- \textit{Soundproof box with the sound of ringing in your ears}. 

I took the participants into a room where I had arranged the artwork on a table. I then asked the participants to look at and listen to the work for as long as they liked, and to let me know when they had had enough, so that the interview could commence.

**Intended structuring of content and form of listening**

In experiencing the artwork, I expected that initially listeners would experience the impression of listening to the sound physically emitted by the *Box with the sound of its own making*; this was the initial expected content of listening. Given the impression of a box emitting sound it purports to contain, I expected listeners to engage in a relatively *neutral* form of listening, as used in apprehending any object that produces a sound that is expected; this was the initial expected form of listening.

As listeners encountered the rest of the boxes – that purported to contain sounds they *didn’t* emit – I expected the listeners to listen *for* sounds, summoning them in *imagination*. 
or memory, or possibly seeking evidence for them in the environment; this was the subsequent expected form of listening. Because of the participants’ listening for sounds, I expected them to listen to imagined or remembered sounds; this was the subsequent expected content of listening.

In order to structure a critique of listening in the experiencing of an artwork, Sound, proof uses a shift or ambiguity in the context of the listened to – in this instance a shift from listening to the materially present to listening to the imaginary – to engage multiple forms of listening and place them in conflict.

For the artwork to have been successful on the level of structuring experience as critique, the participants’ descriptions of the contents and forms of their experiences throughout the duration of the work had to align with the expected contents and forms described above.

My interpretation of the work’s meaning or purpose

My interpretation of the meaning or purpose of Sound, proof was of it as an exploration of the relationship between physical sensing, and the mental experiencing of sound, and a demonstration that listening does not require sound, but rather people just as often listen for sound as listen to it.

For the work to have been successful in communicating my interpretation of its meaning or purpose, the listener’s interpreted meaning had to contain comments that reflected my above statement, using concepts of: imagined sound, remembered sound, listening for sound, and concepts referring to critical thought and listener agency.

Experienced structuring of content and form of listening

In their descriptions of experiencing Sound, proof, all of the participants reported listening to the sound emitted by the Box with the sound of its own making, and, aside from some comments on its novelty regarded it as a relatively ordinary sound producing object, matching the expected initial content of listening. All of the participants’ descriptions of
the content of their experience also suggest listening in a relatively neutral, ordinary way, matching the expected initial form of listening. David was listening to “the sound of the first box”; Grace: “the box, with the sound of paper and tape”; Erin: “I was listening to the sound coming from the first box”; and Roger “I was listening to the sound of the box”.

Table 6: Initial content and form of experiencing *Sound, proof*(verified)

<table>
<thead>
<tr>
<th>Participant</th>
<th>Content</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utako</td>
<td>At the beginning of Utako’s experience of the piece she was listening to the actual sound coming from the first box, with the sound of its own making, “I was listening to constantly the sound that came, that comes from the right hand, the right box, right hand side”.</td>
<td>Utako’s attention to the sound physically projected from the first box suggests engagement in a form of listening that focuses on concrete external events.</td>
</tr>
<tr>
<td>David</td>
<td>In David’s experience of the piece he listened solely to the sound of the box with the sound of its own making, to “the sound of the first box, the sound of you moving around me telling me not to touch the boxes”.</td>
<td>David’s attention to the sound physically projected from the first box suggests he was engaged in a form of listening that focuses on concrete external events.</td>
</tr>
<tr>
<td>Jane</td>
<td>At the beginning of Jane’s experience of the piece she was listening to the sound physically projected from the first box, the box with the sound of its own making.</td>
<td>Jane’s attention to the sound physically projected from the first box suggests she was engaged in a form of listening that focuses on concrete external events.</td>
</tr>
<tr>
<td>Grace</td>
<td>Initially in Grace’s experience of the piece she was listening to the sound physically projected from the first box “the box, with the sound of paper and tape”.</td>
<td>Grace’s attention to the sound physically projected from the first box suggests engagement in a form of listening that focuses on concrete external events.</td>
</tr>
<tr>
<td>Erin</td>
<td>Initially Erin listened to the sound physically projected from the first box “I was listening to the sound coming from the first box”.</td>
<td>Erin’s attention to the sound physically projected from the first box suggests engagement in a form of listening that focuses on concrete external events.</td>
</tr>
<tr>
<td>Tania</td>
<td>Initially in Tania’s experience of the piece she was listening to the sound physically projected from the first box, with the sound of its own making “physically listening because I was, I had my eyes down I made eye contact with the box, I mean I was focused on the box, yaah physically listening”.</td>
<td>Tania’s attention to the sound physically projected from the first box suggests engagement in a form of listening that focuses on concrete external events.</td>
</tr>
<tr>
<td>Meg</td>
<td>Initially in Meg’s experience of the piece she was listening to the sound physically projected from the first box “the first little one, it was just, I don’t know it’s just really cute that it’s got its, like the sound is of being made”.</td>
<td>Meg’s attention to the sound physically projected from the first box suggests engagement in a form of listening that focuses on concrete external events.</td>
</tr>
<tr>
<td>Damian</td>
<td>Initially in Damian’s experience of the piece he listened to the sound physically projected from the first box, although he found the character of that sound quite ambiguous, and pointed out that without the label he may have easily interpreted it as something else. “Think at the same time the box with the sound of its own, if that marking, the thing wasn’t there I wouldn’t have, sort of, I would’ve thought that’d be some sort of rustling, it just has a real kind of general sound to it. I wouldn’t have, I don’t think, initially I don’t think I would’ve gone, you know if it was just a box it would’ve been yeah, it’s just some sort of rustling, but what’s the kind of rustling sound, but you know having that, the little marker there saying, you know it’s what it is”</td>
<td>Damian’s attention to the sound physically projected from the first box suggests engagement in a form of listening that focuses on concrete external events, although he also displays heightened awareness of the role his imagination plays in interpreting these sounds.</td>
</tr>
</tbody>
</table>
As the participants moved on to listening to the rest of the set of the boxes, most reported listening to imagined or remembered sounds, matching the expected subsequent content of listening, as they listened for the sounds indicated by the boxes’ labels, matching the expected subsequent form of listening. Roger: “then as I was reading the words I was listening to the sound in my imagination”, Meg: “then like as I went along the other ones I sort of imagined the different sounds”, Erin: “I was trying to sort of, I guess construct what that sound was in my mind”.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Dave</td>
<td>Initially in Dave’s experience of the piece he was listening to the sound physically projected from the first box “well I was listening to the boxes, or the first box”.</td>
<td>Dave’s attention to the sound physically projected from the first box suggests engagement in a form of listening that focuses on concrete external events,</td>
</tr>
<tr>
<td>Cath</td>
<td>Initially in Cath’s experience of the piece she was listening to the sound physically projected by the first box “for most part I was listening to the little box that was making the sounds”.</td>
<td>Cath’s attention to the sound physically projected from the first box suggests engagement in a form of listening that focuses on concrete external events,</td>
</tr>
<tr>
<td>Roger</td>
<td>At the start of Roger’s experience of the piece, he was listening to the sound physically projected by the first box “I was listening to the sound of the box, at the start”.</td>
<td>Roger’s attention to the sound physically projected from the first box suggests engagement in a form of listening that focuses on concrete external events,</td>
</tr>
</tbody>
</table>

As the participants moved on to listening to the rest of the set of the boxes, most reported listening to imagined or remembered sounds, matching the expected subsequent content of listening, as they listened for the sounds indicated by the boxes’ labels, matching the expected subsequent form of listening. Roger: “then as I was reading the words I was listening to the sound in my imagination”, Meg: “then like as I went along the other ones I sort of imagined the different sounds”, Erin: “I was trying to sort of, I guess construct what that sound was in my mind”.

Table 7: Subsequent content and form of experiencing Sound, proof (verified)

<table>
<thead>
<tr>
<th>Participant</th>
<th>Content</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utako</td>
<td>As her attention moved to the other boxes in the series, Utako was also listening to the memories of sounds that the labels of the other boxes suggested “I was listening to, listening to the sounds that I had experienced before, and somehow stored in my brain, as a memory”, “a generalized memory of the sound”.</td>
<td>Utako’s attention to remembered sounds, suggests a change to a form of listening that includes events in imagination and memory in its focus.</td>
</tr>
<tr>
<td>David</td>
<td>David consciously took in the idea that the sounds suggested by the other boxes could be imagined, and consciously rejected the idea that this could be termed listening, based on his beliefs as to what constitutes listening. “I guess it sort of has me, it’s sort of suggesting to me that the author of this piece believes that listening is not as I defined it before - passive experience of sound and it’s rather. It’s an interactive thing, but I don’t know this is kind of confronts me in that sense because I still believe that, in that true definition of listening is me listening to the sound of the first box there”.</td>
<td>In his engagement with the latter boxes David appears to have recognised the possibility that he could move to a form of listening that includes events in imagination and memory in its focus, however he rejected this idea.</td>
</tr>
<tr>
<td>Jane</td>
<td>Very quickly, Jane moved on through the series of boxes, at which point she was listening to “my memories of sound which aren’t real they’re just kind of my version of whatever it might sound like”, “cartooned memory sound I guess”.</td>
<td>Jane’s attention to remembered sounds, suggests a change to a form of listening that includes events in imagination and memory in its focus.</td>
</tr>
</tbody>
</table>
| Grace       | As Grace moved through the series of boxes she began to listen to her imagined version of the sounds suggested by the labels “then I was also listening to my imagination, my memories of what I think a busy freeway, and a construction site and the wind and the ringing in my ears sounds like”. Although Grace was conflicted as to whether she considered this imaginative mode listening “that’s not listening it’s imagining”.

Grace’s attention to imagined and remembered sounds suggests a change to a form of listening that includes events in imagination and memory in its focus, although she appears conflicted as to whether to term this behaviour ‘listening’. |
<table>
<thead>
<tr>
<th>Participant</th>
<th>Content</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erin</td>
<td>As Erin moved through the series of boxes she began to listen to her imagined versions of the sounds suggested by the labels on the boxes “I was trying to sort of, I guess construct what that sound was in my mind”. Unique among the group of participants was part of Erin’s reaction to imagining sounds in this piece, as well as synthesising them in her mind she attempted to interpret the actual sound coming from the first box as the other sounds, listening for evidence of the other sounds in that recording. “Comparing those [imagined] sounds with the sounds coming from the first box to see if maybe there was something in there that matched up with one of these ones”.</td>
<td>Erin’s attention to imagined sounds, suggests a change to a form of listening that includes events in imagination and memory in its focus. This latter form of listening also seems to have applied a heightened form of imaginary interpretation to external events.</td>
</tr>
<tr>
<td>Tania</td>
<td>As she moved through the series of boxes Tania began to listen to her imagined versions of the sounds suggested by the boxes’ labels, although she had trouble with some. For example: “I thought that by reading the word my history, I would bring up a history stored away in my brain about the freeway, I’ve driven on one so many times but it didn’t, I’m not sure why”.</td>
<td>Tania’s attention to imagined and remembered sounds suggests a change to a form of listening that includes events in imagination and memory in its focus, although she appears to have had difficulty with her ability to imagine some sounds.</td>
</tr>
<tr>
<td>Meg</td>
<td>As Meg moved through the series of boxes she listened to her imagined versions of the sounds suggested by the boxes’ labels “then like as I went along the other ones I sort of imagined the different sounds”.</td>
<td>Meg’s attention to imagined sounds, suggests a change to a form of listening that includes events in imagination and memory in its focus.</td>
</tr>
<tr>
<td>Damian</td>
<td>Damian seems to have taken on the idea that the sounds suggested by the labels of the other boxes could be imagined, however he also seems to have taken issue with the suspension of disbelief required to accept the boxes as soundproof. As he states with a tone of sarcasm: “Yeah I guess it’s soundproof and there’s a construction site happening within that little box, or there’s a busy freeway within that box, it is soundproof, I think you know, just, the physicality of it suggests that, yeah, within that box because it’s soundproof that’s, all the action’s happening in there”.</td>
<td>Somewhat like David, in his engagement with the latter boxes Damian appears to have recognised that he could have changed to a form of listening that includes events in imagination and memory in its focus, however he appears to have taken issue with the suspension of disbelief required for this to take place, and to have rejected the idea.</td>
</tr>
<tr>
<td>Dave</td>
<td>As Dave moved through the rest of the series of boxes he began to listen to his imagined version of the sounds suggested by the labels, or as he puts it the ‘absence’ of those sounds. “I was listening to the absence of the sounds that were supposedly in the boxes, which is like a weird thing to listen to, it’s like not nothing but it’s the negative sound”.</td>
<td>Dave’s attention to imagined sounds, suggests a change to a form of listening that includes events in imagination and memory in its focus. This latter form of listening also seems to have sought out sounds in the environment more intensely. During the interview Dave also pointed out that the sounds indicated by the boxes’ labels could all potentially be heard from the interview room given the right circumstances and attention “It’s funny though these are all sounds that could be here if I was listening a bit more, is that a construction site now? Could be, I don’t know I just noticed these are all sounds that could possibly be heard from this room”.</td>
</tr>
<tr>
<td>Cath</td>
<td>As Cath moved on through the rest of the series of boxes she began listening to her imagined and remembered versions of the sounds indicated by the labels, and directing her attention to actual instances of them such as the wind outside (‘it was a windy day’) and the ringing in your ears.</td>
<td>Cath’s attention to imagined sounds, suggests a change to a form of listening that includes events in imagination and memory in its focus. This latter form of listening also seems to have sought out sounds in the environment more intensely.</td>
</tr>
<tr>
<td>Roger</td>
<td>As he moved through the rest of the series of boxes, Roger was listening to the sounds indicated by the boxes’ labels in his imagination “then as I was reading the words I was listening to the sound in my imagination”.</td>
<td>Roger’s attention to imagined sounds suggests a change to a form of listening that includes events in imagination and memory in its focus,</td>
</tr>
</tbody>
</table>
There were two exceptions in experiencing the subsequent expected content and form of listening: David and Damien. David recognised the intended meaning or purpose of the piece very clearly and rejected the notion that experiencing sound in any other way than by physical stimulation could be termed listening. So, although he may have imagined the sounds indicated he did not regard this as part of his listening experience: “I still believe that, in that true definition of listening is me listening to the sound of the first box there”. The words of Damien’s response indicate listening to the imagined contents of the boxes, however his tone suggested sarcasm and a rejection of suspension of disbelief. “Yeah I guess it’s soundproof and there’s a construction site happening within that little box, or there’s a busy freeway within that box, it is soundproof. I think you know, just, the physicality of it suggests that, yeah, within that box because it’s soundproof that’s, all the action’s happening in there”.

One notable experience of the subsequent content of listening was that of Erin. In addition to listening to imagined and remembered sounds, Erin directed her attention to sounds physically occurring in or around the space and relating them to the boxes’ labels; “comparing those [imagined] sounds with the sounds coming from the first box to see if maybe there was something in there that matched up with one of these ones”.

In the majority of cases, the participants experienced the contents and forms of listening as intended. The exceptions recognised the intended meaning of the piece quite clearly (as discussed below), but rejected it, and with it the notion of accepting their experiences of imagining and remembering as part of listening. By this test of the artwork’s intent, it was successful for the majority of participants.

Interpreted meaning or purpose
Nine of the eleven participants responded to the question of the work’s meaning or purpose with statements remarkably analogous to that used above by me, discussing their experiences in terms of listening to physically present sounds, and listening for sounds in imagination, memory, previous experience, and absent sound. In Utako’s words the piece’s meaning indicated listening “wasn’t purely just sound”, “also maybe to do with memory or how you... how experience of your listening is influenced by your previous experience”. In David’s words it was “in perhaps suggest that I, that listening is more than just taking the sound in, and
implying your own experiences onto a setting”, and more poetically, Dave: “to me it was about noticing the absence of sounds, that negative space created by the absence of sound”.

Table 8: Interpreted meaning or purpose of Sound, proof (verified)

<table>
<thead>
<tr>
<th>Participant</th>
<th>Discussion of meaning/purpose</th>
<th>Concepts in meaning/purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utako</td>
<td>“There was definitely a relationship, I mean it wasn’t purely just sound, there was visual information and then textual or linguistic information”</td>
<td>Visual information</td>
</tr>
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<td></td>
<td>“I assume it’s to do with, the meaning of the piece is I guess revealing the, what constructs the experience of listening to, listening isn’t all only sound itself but actually related to other things”</td>
<td>Textual/linguistic information</td>
</tr>
<tr>
<td></td>
<td>“And also maybe to do with memory or how you... How experience of your listening is influenced by your previous experience of listening”</td>
<td>Revealing</td>
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<td></td>
<td></td>
<td>Listening beyond sound</td>
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<tr>
<td></td>
<td></td>
<td>Memory</td>
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<tr>
<td></td>
<td></td>
<td>Previous experience</td>
</tr>
<tr>
<td>David</td>
<td>“To perhaps suggest that I, that listening is more than just taking the sound in, and implying your own experiences onto a setting”</td>
<td>Listening beyond sound</td>
</tr>
<tr>
<td></td>
<td>“Certainly I imagined those sounds as I read it, but it’s an imagination of a sound. I mean anyway you can argue what is consciousness anyway, this is not a topic for this interview but, at the basal consciousness level listening to something like that’s really like stimuli in the ears versus a memory of it is probably not that different. But the difference I think is that I put the time to listen to the sound of the box, whereas after I read the first of the other ones I glanced that they were all going to be the same and just read ... And then oh I get it”</td>
<td>Previous experience</td>
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<td></td>
<td>“I didn’t really take the time to imagine”</td>
<td>Imagination</td>
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<td></td>
<td>“As I sit here right now I guess I kind of do but, you can’t help it even, and you can’t help picturing a busy freeway or a construction site as you read it, I don’t think I was compelled to spend time, because I was being fought from the other box I guess”</td>
<td>Memory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Textual/linguistic information</td>
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<tr>
<td></td>
<td></td>
<td>Visual information/imagination</td>
</tr>
<tr>
<td>Jane</td>
<td>“It’s an interesting interaction between text and memory, and I wonder like the boxes, ‘cause there’s actually a physical element it’s not just text, you didn’t just hand me a bit of paper with text prompts. So helps you to visualise something as well, so there’s sort of the visual element of there being a physical thing helps I think to access that memory of sounds you know, it’s like ‘oh, it’s there, it’s in there, what’s happening in there?” it just helps trigger your imagination a little bit”</td>
<td>Textual/linguistic information</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Memory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Visual information/imagination</td>
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<tr>
<td></td>
<td></td>
<td>Imagination</td>
</tr>
<tr>
<td>Grace</td>
<td>“Maybe it’s that... There’s far more interesting things on this list that could possibly be going on in these boxes than making the box, I think the point was that when given a choice of absolute silence and something, always listen to the something, because probably we don’t even know what absolute silence is”</td>
<td>Choice</td>
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<tr>
<td></td>
<td></td>
<td>Dealing with silence</td>
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<td></td>
<td></td>
<td>Attention</td>
</tr>
<tr>
<td>Erin</td>
<td>“I guess, concept of the source of a sound, and about the fact that there’s sounds that you’re not, there’s potential sounds that you just can’t hear, well that could exist but you don’t know because you’re not listening to it”</td>
<td>Source of sound</td>
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<td></td>
<td></td>
<td>Absent sound</td>
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<tr>
<td></td>
<td></td>
<td>Listening beyond sound</td>
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<tr>
<td>Tania</td>
<td>“I don’t know I guess it’s a spectrum of what you bring as an individual to the listening experience in yourself, and challenging that by confusing you a little bit, which is a good way to do it I guess”</td>
<td>Previous experience</td>
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<tr>
<td></td>
<td></td>
<td>Challenging</td>
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<td></td>
<td></td>
<td>Confusion</td>
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<tr>
<td>Meg</td>
<td>“I don’t know, it could be that listening’s not just about sound going in the ears and like vibrating the parts of the ear and that sort of stuff, that I can be yeah, listening to your own thoughts, your own imagination sort of stuff”</td>
<td>Listening beyond sound</td>
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<tr>
<td></td>
<td></td>
<td>Imagination</td>
</tr>
<tr>
<td>Damian</td>
<td>“I think the meaning of the piece was to look at it, like, going back to the previous question or so, was to find some sort of sound but also visually look at it at the same time, have this synergy I guess between the two”</td>
<td>Finding</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Absent sound</td>
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<tr>
<td></td>
<td></td>
<td>Visual information</td>
</tr>
<tr>
<td>Dave</td>
<td>“To me it was about noticing the absence of sounds, that negative space created by the absence of sound, that’s what, the biggest thing I thought about”</td>
<td>Listening beyond sound</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Absent sound</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Noticing</td>
</tr>
<tr>
<td>Cath</td>
<td>“To me I think it was about focusing, and not being distracted, yep”</td>
<td>Focusing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Attention</td>
</tr>
<tr>
<td>Roger</td>
<td>“I think this particular piece, just, I don’t know if it was the meaning, and I don’t know if I feel, well I don’t feel comfortable with that word describing this piece at all. What I would say is the purpose of the piece was to demonstrate that the imagination or the imagined listening is as potent and as active and as powerful as the actual listening, and that’s what its purpose was, rather than its meaning”</td>
<td>Imagination</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Demonstration</td>
</tr>
</tbody>
</table>
The exceptions were Grace and Cath, who did not refer to memory, imagination, or absent sound in their discussion of the work’s meaning, but focused more on the competition for attention between the sound physically projected by the first box, and those produced through their interactions with the other boxes. Cath: “to me I think it was about focusing, and not being distracted, yep”, Grace: “I think the point was that when given a choice of absolute silence and something, always listen to the something”.

Also significantly to the test of the work’s success in communicating my interpretation of its meaning or purpose, the majority of participants’ discussions of its meaning contained use of concepts describing critical or exploratory processes in reference to the artwork’s meaning, these include: revealing, choice, challenging, confusion, finding, noticing, focusing, and demonstration.

Besides those expected, the participants also used the following concepts prominently in their discussions of meaning. Utako, David, Jane and Damian all discussed the effect of the boxes’ visual appearance and the relationship between visual and auditory perception, David and Jane discussed the interaction of the visual and auditory imagination, and Utako, David and Jane discussed the role and effect of the text. Utako: “there was definitely a relationship, I mean it wasn’t purely just sound, there was visual information and then textual or linguistic information”. Jane: “it’s an interesting interaction between text and memory”, “the visual element of there being a physical thing helps I think to access that memory of sounds you know, it’s like “oh, it’s there, it’s in there, what’s happening in there” it just helps trigger your imagination a little bit”. Damian: “I think the meaning of the piece was to look at it, like, going back to the previous question or so, was to find some sort of sound but also visually look at it at the same time. Have this synergy I guess between the two”.

In the majority of cases, the participants’ discussion of the piece’s meaning or function referred to the intended key concepts of imagined sound, remembered sound, listening for sound, and concepts referring to critical thought and listener agency. On the level of communicating its key concepts, this piece was largely successful. The majority of listeners also interpreted the work’s meaning or purpose in a way uncannily similar to my
interpretation, and it would seem that communication of this piece’s meaning or purpose to a listener with a fair degree of clarity is not only possible, but also likely.

Judging by the experiences of the participants who listened to the piece, *Sound, proof* elicits a consistent meaning or function – that listening is not dependent on sound – and stimulates critical thought about the relationship between the heard, imagined, and remembered.

**Reworking**

*Sound, proof*, in its initial form, was quite successful in structuring experience as intended, and in communicating my interpretation of its meaning or purpose, and its intended key concepts. Overall, I was very happy with how the piece turned out, and had few refinements to make to it.

One minor change I did consider making was to make the boxes slightly larger, and possibly to place some kind of weight or reinforcing lining inside them, to enhance the illusion of their being genuinely soundproof for the benefit of those who struggled with the element of suspension of disbelief. Ultimately I chose not to go ahead with this change as I felt it unnecessary, and kept the piece the same.
Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

Over hear

Inspiration

Over hear (Robinson, 2014c) was inspired by several experiences of having my attention drawn out of listening to sound on headphones, to sounds occurring in the environment around me, on the street by loud cars, sirens, and construction sites, and in particular an experience I had visiting a show of sound art works as part of Liquid Architecture 2012.

This show consisted of several pieces being exhibited using a mixture of loudspeakers and headphones. The works played back via loudspeakers suffered from the common problem and unfortunate reality of the medium, in that their sounds bled into one another. The works played back via headphones – presumably to aid focus on the sounds they were projecting and to exclude the sounds occurring in the room (as is their
customary function) – suffered a similar phenomenon, but more as a product of listener attention than acoustics.

What I experienced when listening to the pieces played on headphones was that if I grew bored with what was playing in them, I experienced a pull on my attention outward to include the sounds coming from the loudspeakers around the room, and I noticed that my attention could encompass both sets of sounds and spaces\(^{51}\) to varying degrees. Essentially this led to my composing a new piece from the focusing and refocusing of my attention between the sources, and the virtual and literal spaces.

In *Over hear* I attempted to reproduce and manipulate this effect, using musical sound content.

**Realisation**

As shown to the research participants, *Over hear* consisted of a short three channel recorded composition played back through headphones and a small freestanding speaker, from a laptop computer.

The piece was a collage of recordings of a few short guitar improvisations, focused on using sounds made by scratching the instrument’s strings with fingernails. I chose this technique with the aim of producing sound content whose identity as music would be ambiguous, or difficult to discern for the listener. I sought this ambiguity to mitigate problems I had had in earlier experiments using musical sound to form a critique of listening, and to try to encourage listeners to listen to musical sound in a non-musical way.

In the draft version of the piece, playback began with two guitar parts played through the two sides of the headphones, one part to a side. As the piece proceeded, a third part, played through the freestanding speaker, joined the piece and the three parts, playing through the left headphone, right headphone, and freestanding speaker, played in trio.

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\(^{51}\) The headphones producing a virtual space
In showing them the work, I took the participants into a room where the computer, headphones, and freestanding speaker were set up, and asked them to put on the headphones, and to press the spacebar to begin playback of the piece. I was present in the room while the participants listened to the piece.

**Intended structuring of content and form of listening**

In experiencing the artwork I expected that, initially, listeners would experience the impression of listening to sound emitted by the headphones and would be unaware of sound occurring in the physical space outside of the headphones; this was the initial expected content of listening. Given the impression of listening to sound emitted by headphones, I expected listeners to engage in the *spatially and attentionally focused, exclusionary* form of listening customary when using headphones; this was the initial expected form of listening.

Over the course of the piece, I expected this impression to change to one of listening to sound emitted by the freestanding speaker as well as by the headphones, and to being more aware of sound occurring in the physical space outside the headphones; this was the expected subsequent content of listening. Given the impression of listening to headphones *and* other sources external to that virtual space and its set of sounds, I expected listeners to engage in a more *inclusive and spatially flexible* form of listening, listening to the headphone’s sound and space, *and* the sound of the freestanding speaker and the physical environment it and the listener were occupying. This was the expected subsequent form of listening.

In order to structure a critique of listening in the experiencing of an artwork, *Over bear* used a shift or ambiguity in the context of sound to engage multiple forms of listening and place them in conflict, producing critical examination of each compared to the other. In this case, a shift from listening to sound inhabiting the virtual space of and emitted by the headphones, to listening to sound inhabiting the virtual space *and* inhabiting the physical space beyond the headphones, emitted by the freestanding speaker.
For the artwork to have been successful on the level of structuring experience as critique, the participants’ descriptions of the contents and forms of their experiences throughout the duration of the work had to align with the expected contents and forms described above.

My interpretation of the work’s meaning or purpose
My interpretation of the meaning of Over hear was as an exploration of the relationship between attention and spatial perception in listening, and as a demonstration that how people direct their attention, and the objects to which they direct it, affects the not only the inclusion and exclusion of sounds from perception, but also how space is perceived.

For the work to have been successful in communicating my interpretation of its meaning or purpose, the listener’s interpreted meaning or purpose had to contain comments that reflected my statement above, using concepts of: attention, and spatial perception.

Experienced structuring of content and form of listening
In their descriptions of their experiences of Over hear, all of the participants reported listening to the sound emitted by the headphones, and with the exception of Roger who was aware of the premise of the piece ahead of time, appear to have excluded sounds occurring outside of the headphones from their attention during this part of the piece. This matches the expected initial content of listening. They also appear to have engaged in a spatially and attentionally focused, exclusionary form of listening, with a reduced perception of sonic space, matching the expected initial form of listening. David: “I think that once you put headphones on someone I guess that’s a different point and maybe it’s worthy of mentioning, I think then you’re isolated, and I think then you’re forced to really listen and I was”. Jane: “at the beginning [I was listening to] just what was in the headphones”. Meg: “I was listening to the sound coming through the headphones”. Dave: “I was not listening in a particularly open way I was listening in quite a closed way, like I’d decided what the sound was and was listening to that”.

130
As the piece carried on, with the introduction of sound emitted by the freestanding speaker, six of the eleven participants – Utako, Jane, Grace, Tania, Damian, and Cath –
became aware of the freestanding speaker as an independent sound source, matching the expected subsequent content of listening. They also appear to have adopted a more inclusive and spatially flexible form of listening, matching the expected subsequent form of listening. The exception was Roger, who was aware of the freestanding speaker from the start and experienced the latter content and form of listening for the work’s entire duration. Utako: “when I realised that that was, that gave another layer of my experience for the piece”. Jane: “so at that point I was listening to both at the same time, equally”. Grace: “and then I heard this, which may or may not have started in the headphones I don’t know, but I couldn’t figure that out”. Cath: “but then every time I heard a sound in front of me it kind of distracted me and it made me, not annoyed that it was there it kind of made me smile because I’m like ‘oh that thing’s trying to get my attention’”.

Table 10: Subsequent content and form of experiencing Overhear (verified)

<table>
<thead>
<tr>
<th>Participant</th>
<th>Content</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utako</td>
<td>Later in her experience of the piece, Utako became aware of the sound projected by the external speaker “when I realised that that was, that gave another layer of my experience for the piece”, and became more spatially aware. “I was I guess start mapping the sounds, maybe not so visually but somehow making map. A map of where sounds come from, and eventually outside of my map, I hear, from there I hear something”. Utako’s attention to the sounds outside as well as inside the headphones suggests a change to a more spatially and attentionally flexible form of listening. Beyond the spatial relationships between the sound sources, Utako seems to have been preoccupied with identifying the recorded sound source - a guitar.</td>
<td></td>
</tr>
<tr>
<td>David</td>
<td>David did hear the sounds emitted from the external speaker, however he attributed them to the headphones. “I could definitely, in hindsight at this point I could hear there was, I could not, I didn’t separate it as something outside of the headphones actually, but rather I, I thought it was some harmonic thing that happens. That when you’re getting you know the sound waves are in sync, you know how you get this effect, I don’t know the proper term for it. ‘Matched’ it felt like one of those illusions where, yeah you really feel like your head’s vibrating or something you know, it was like that but you know I didn’t externalise it in that sense, I didn’t assign it as an external sound to the source”. David’s attention to the headphones as a sound source, and his engagement in a spatially restricted, exclusionary form of listening associated with their use, seems to have been so intense as to have overdidden the external sound’s spatial placement. Beyond the spatial relationships between the sound sources, David seems to have been preoccupied with identifying the recorded sound source – a guitar, and even seems to have engaged in some acousmatic listening. “The sounds in their true auditory sense and trying to relate them to sounds you’ve heard to work out what they are but after that then I was listening to rather the quality of the sound”.</td>
<td></td>
</tr>
<tr>
<td>Jane</td>
<td>Later in her experience of the piece, Jane became aware of the sound projected by the external speaker and applied her attention to the headphones and the external source “so at that point I was listening to both at the same time, equally”. Jane’s attention to the sounds outside as well as inside the headphones suggests a change to a more spatially and attentionally flexible form of listening.</td>
<td></td>
</tr>
<tr>
<td>Grace</td>
<td>Later in her experience of the piece, Grace became aware of the sound projected by the external speaker, and applied her attention to the headphones and the external source “and then I heard this, which may or may not have started in the headphones I don’t know, but I couldn’t figure that out”. Grace’s attention to the sounds outside as well as inside the headphones suggests a change to a more spatially and attentionally flexible form of listening. Beyond the spatial relationships between the sound sources, Grace seems to have been preoccupied with identifying the recorded sound source - a guitar.</td>
<td></td>
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</tbody>
</table>
Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

<table>
<thead>
<tr>
<th>Participant</th>
<th>Content</th>
<th>Form</th>
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</thead>
<tbody>
<tr>
<td>Erin</td>
<td>Erin did hear the sounds emitted from the external speaker, however she attributed them to the headphones. “That’s so strange, wow yeah ‘cause I did notice that there was, you know, that was like it wasn’t one or the other but then there was still a noise coming from, so I just didn’t really think about the fact that there could be another source of sound. Can’t believe that’s been there the whole time and I didn’t even notice it was there, that’s so funny, wow”.</td>
<td>Erin’s attention to the headphones as a sound source, and her engagement in a spatially restricted, exclusionary form of listening associated with their use, seems to have been so intense as to have overridden the external sound’s spatial placement. Beyond the spatial relationships between the sound sources, Erin seems to have been preoccupied with identifying the recorded sound source - a guitar.</td>
</tr>
<tr>
<td>Tania</td>
<td>Later in her experience of the piece, Tania became aware of the sound projected by the external speaker and applied her attention to the headphones and the external source. “That process of figuring out there was two sounds happening at the same time, because then it’s, it feels a little more far away, but not intentionally far away like some of the other sounds here. So that was a moment of confusion and then trying to figure it out, and then destructing it, then trying to focus on part B a little bit more, and then putting it back together with more awareness that they’re these two things playing”</td>
<td>Tania’s attention to the sounds outside as well as inside the headphones suggests a change to a more spatially and attentionally flexible form of listening. Beyond the spatial relationships between the sound sources, Tania seems to have been preoccupied with identifying the recorded sound source - a guitar, and the piece’s meaning or function. “I was listening to the sounds and then trying, I couldn’t help but try figuring it out. Not just what it was but just what it might be as well, like, what is it trying to say”</td>
</tr>
<tr>
<td>Meg</td>
<td>Meg did hear the sounds emitted from the external speaker, however she attributed them to the headphones. “I mean I did, like, I was aware of other sounds but maybe not, I didn’t know that that was making any sounds. But like, ‘cause I was really trying to focus on the headphones but I could hear like the tiniest bit of like murmur in the next room, but, yeah I don’t know”.</td>
<td>Meg’s attention to the headphones as a sound source, and her engagement in a spatially restricted, exclusionary form of listening associated with their use, seems to have been so intense as to have overridden the external sound’s spatial placement. “I didn’t really, I didn’t think it was that, is that going to do something, like when I took them off I was like ‘what’s that there?’”</td>
</tr>
<tr>
<td>Damian</td>
<td>Later in his experience of the piece, Damian became aware of the sound projected by the external speaker and applied his attention to the headphones and the external source. “That speaker there was EQ’d, well the volume level were just right as far as you can hear the occasional sound that was in the middle so it spoke”.</td>
<td>Damian’s attention to the sounds outside as well as inside the headphones suggests a change to a more spatially and attentionally flexible form of listening.</td>
</tr>
<tr>
<td>Dave</td>
<td>Dave did hear the sounds emitted from the external speaker, and experience doubt as to their source, however he attributed them to the headphones. “There was a couple of times in it I didn’t really know whether I could hear was inside the headphones or outside the headphones”.</td>
<td>Dave’s attention to the headphones as a sound source, and his engagement in a spatially restricted, exclusionary form of listening associated with their use, seems to have been so intense as to have overridden the external sound’s spatial placement. “Yeah I’m surprised I didn’t notice the speaker, maybe I just wasn’t listening for it so much ‘cause I was just kind of in this headphones world, ‘cause I’m used to putting headphones on and ignoring everything else a bit”</td>
</tr>
<tr>
<td>Cath</td>
<td>Later in her experience of the piece, Cath became aware of the sound projected by the external speaker and applied her attention to the headphones and the external source and the attentional relationship between them. “But then every time I heard a sound in front of me it kind of distracted me and it made me. Not annoyed that it was there it kind of made me smile because I’m like ‘oh that things trying to get my attention, whereas I just wanted to concentrate on what was directly in my ears as opposed to being out there somewhere”.</td>
<td>Cath’s attention to the sounds outside as well as inside the headphones suggests a change to a more spatially and attentionally flexible form of listening.</td>
</tr>
<tr>
<td>Roger</td>
<td>In Roger’s experience of the piece, he directed his attention to the sound coming from the headphones and from the external speaker for its entire duration, given his foreknowledge of the premise of the piece.</td>
<td>Roger’s attention to the sounds outside as well as inside the headphones suggests engagement in a spatially and attentionally flexible form of listening, and given his foreknowledge of the piece’s premise Roger appears to have experienced no change in the form of listening engaged in.</td>
</tr>
</tbody>
</table>
The remainder of the participants who did not recognise the freestanding speaker as a separate sound source attributed its sound to the headphones. David: “I didn’t separate it as something outside of the headphones”. Erin: “I just didn’t really think about the fact that there could be another source of sound”. Dave attributed all of the sounds to the headphones, although there were times when he doubted the location of the sounds, and may have come close to recognising the freestanding speaker “there was a couple of times in it where I wasn’t sure whether what I could hear was inside the headphones or outside the headphones”.

Interestingly, as well as the sounds of the headphones and the freestanding speaker, Utako also included environmental sounds in her spatially expanded attention. This appears to be due to the exceptional circumstances under which she was shown the piece, wherein her attention was drawn to a very loud aeroplane flying over the building we were in. None of the other participants seems to have payed significant attention to environmental sounds in the space outside the headphones.

For six out of the eleven participants, their experienced contents and forms of listening were as outlined in the work’s intent, with one participant (Roger) experiencing the intended contents but only the subsequent form, being aware of the work’s premise ahead of time. The remaining four participants only experienced the initial expected content and form of listening. By this test of the artwork’s intent, it was successful for more than half of the participants in structuring the experience of listening as intended.

Interpreted meaning or purpose
Only Utako responded to the question of the artwork’s meaning or purpose with a statement explicitly analogous to that used above to summarise its intent, “I guess how aural environment, how aural sounds can map how much space you engage that moment”. The rest of the participants’ discussions of meaning covered a disparate range of ideas, although several responses did touch on the key concepts of attention and spatial perception.
The table below presents the interpretations of the artworks by different participants, along with the concepts related to the meaning or purpose of each piece.

Table 11: Interpreted meaning or purpose of *Over hear* (verified)

<table>
<thead>
<tr>
<th>Participant</th>
<th>Discussion of meaning/purpose</th>
<th>Concepts in meaning/purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utako</td>
<td>“I guess it’s spacious relationship or distance between sounds, and I guess how aural environment, how aural sounds can map how much space you engage that moment” “But also I was trying to find the meaning in, more representational sense, what these sounds, do they have role to represent something? I thought about that, but I couldn’t find it”</td>
<td>Spatial listening Attention Representational meaning?</td>
</tr>
<tr>
<td>David</td>
<td>“I think the meaning to me is a bit less easy to define because, than the last two piece for example because it’s more closer to my definition of listening. It was like listening to a concert or something I guess, I mean in a concert it’s the same thing you’re listening to the instruments and the sounds and you’re picking certain instruments out of it” “It’s less of an art installation and more of a true musical piece”</td>
<td>Musical listening Identifying</td>
</tr>
<tr>
<td>Jane</td>
<td>“It was about immersion for me really, and visualisation, shutting my eyes, I always shut my eyes when I’m trying to listen to something because then it blocks out any visual distraction or association. But then the piece asked me to not do that at some point, there’s something else going so I guess that relationship of immersing yourself with the headphones, breaking that wall that you have”</td>
<td>Attention Association / representation Spatial listening Technological mediation</td>
</tr>
<tr>
<td>Grace</td>
<td>“I felt like I was being tested to see if I would recognise an outside source of sound to what I was listening to, and also, I don’t know because obviously the sound that was coming out of this speaker was a bit more familiar to me it was like music. Whereas the start of this was like abstract sort of sounds that I couldn’t understand, maybe a musician automatically would go ‘I know what that is’ but I’m not a musician, so that took me a while”</td>
<td>Spatial listening Testing Listening skill Musical listening</td>
</tr>
<tr>
<td>Erin</td>
<td>“The traditional form of listening to a song through headphones, but it wasn’t that, it was just listening to sound through headphones and then, I’m not sure I guess listening to noise and sort of trying to figure out what it is and then realising that it’s an instrument that you’re used to listening to but then it’s just being used differently. And it just kind of throws you off but then once you realise what the sound is then you can sort of listen, you listen to it in a different way, because you know what it is now”</td>
<td>Identifying Technological mediation Musical listening</td>
</tr>
<tr>
<td>Tania</td>
<td>“The piece, and obviously this is also something, bringing your perception in as well, this is, just, it felt to me really like struggling a little bit. So a really sort of long struggle to get something across, and just a little bit, that process of going from constrained to just being loose, that was that piece to me, that process” “As an exercise, and I can’t help theorising over it, but it felt like, you were exercising different things but the, it felt like, especially maybe the first bit was a bit more of a listening warm up, warm up and self awareness of listening. And then it’s kind of like in a theatre activity where you’re in a space and when you talk a really good task to figure out how you might be heard by others, volume wise, it is to just go from extreme to the really softest. So you would go from whispering to just like screaming, and in that opens up the spectrum of voice and sound in theatre and that’s what I kind of feel like this multiple tasks were doing, the spectrum was a little more open. Like I was faster to be ‘oh two sound, ah’ it didn’t feel as cold, it kind of felt more fluid by doing these things that I felt built on each other, so that’s how I see in the context of this”</td>
<td>Representational meaning Warming up Listening skill</td>
</tr>
<tr>
<td>Meg</td>
<td>“I’m not sure, it just, yeah, brought up images of like, the wind, like impacting on trees or like I don’t know creaking wood, I don’t know if that’s like the meaning of it but, that was just what came in my mind”</td>
<td>Representational meaning</td>
</tr>
<tr>
<td>Damian</td>
<td>“I guess the meaning of the piece is looking at how we look...” “This particular piece is to see how we’re, we listen to sound, or that’s been emitted through, listened to on headphones, and also listening to certain sounds outside as well”</td>
<td>Spatial listening Technological mediation</td>
</tr>
<tr>
<td>Dave</td>
<td>“I’m not sure what the meaning of this piece was to be honest”</td>
<td>No meaning</td>
</tr>
<tr>
<td>Cash</td>
<td>“I feel like I, maybe repeating myself but I feel like it was to concentrate on what I was hearing, which is maybe listening, in my humble opinion, so like more of, yeah directly concentrating, on the noises or the sounds”</td>
<td>Concentration Listening skill</td>
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</tbody>
</table>
Chapter 3: Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

<table>
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<th>Participant</th>
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<th>Concepts in meaning/purpose</th>
</tr>
</thead>
</table>
| Roger       | “I think it was an experiment in capacity to aurally localise sound, and that’s because what I was told it was, you told me that’s what it was about. Had I not been told that, I think I would have considered it as a, an indicator of the sonic capacities of a musical instrument when not played in a typical way in which it should be played. But I think it had some, it was really nicely constructed, had a definite trajectory, the whole piece, whether it had a meaning I’m not sure. One thing that it did do though was have a, a sense of, a really profound intimacy in it. Cause a lot of those sounds were, they sounded like they, you have to listen very intently to hear them in the real world, and you have to be very close to the thing that emanates the, from which the sound emanates, which implies a very profound intimacy, proximity and attention, equals intimacy, ‘PI=I’” | Spatial listening  
Musical listening  
Intimacy  
Attention |

Most significantly, with regard to the communication of key concepts, Utako, Jane, Grace, Damian, and Roger referred to spatial perception in their statements on the work’s meaning or purpose, and Utako, Jane, and Roger referred to it in relation to attention. Jane: “the piece asked me to not do that at some point, there’s something else going so I guess that relationship of immerseing yourself with the headphones, breaking that wall that you have”. Grace: “I felt like I was being tested to see if I would recognise an outside source of sound to what I was listening to”. Damian: “this particular piece is to see how we’re, we listen to sound, or that’s been emitted through, listened to on headphones, and also listening to certain sounds outside as well”. Roger: “I think it was an experiment in capacity to aurally localise sound, and that’s because it what I was told it was”.

Besides those expected, the participants also used the following concepts prominently in their discussions of meaning. David, Grace, Erin and Roger’s discussed the piece largely in terms of musical meaning, David: “it’s less of an art installation and more of a true musical piece”. Grace: “the sound that was coming out of this speaker was a bit more familiar to me it was like music, whereas the start of this was like abstract sort of sounds that I couldn’t understand”. Erin: “realising that it’s an instrument that you’re used to listening to but then it’s just being used differently, and it just kind of throws you off but then once you realise what the sound is then you can sort of listen”. Roger: “had I not been told that, I think I would have considered it as a, an indicator of the sonic capacities of a musical instrument when not played in a typical way in which it should be played”.

Tania and Meg attributed representational meaning to the sounds, and Utako also attempted to do this but abandoned the idea. Tania: “it felt to me really like struggling a little bit, so a really sort of long struggle to get something across, and just a little bit, that process of going from constrained to just being loose, that was that piece to me, that process”. Meg: “I’m not sure, it just, yeah, brought up images of like, the wind, like impacting on trees, or like I don’t know creaking wood, I don’t
know if that’s like the meaning of it but, that was just what came in my mind”. Utako: “but also I was trying to find the meaning in, more representational sense, what these sounds, do they have role to represent something? I thought about that, but I couldn’t find it”.

Jane, Erin, and Damian’s discussions of meaning or purpose also referred to the effect of technological mediation – the role of the headphones – in listening to the piece. Jane: “that relationship of immersing yourself with the headphones, breaking that wall that you have”. Erin: “the traditional form of listening to a song through headphones, but it wasn’t that, it was just listening to sound through headphones and then, I’m not sure I guess listening to noise”. Damian: “this particular piece is to see how we’re, we listen to sound, or that’s been emitted through, listened to on headphones, and also listening to certain sounds outside as well”. Other notable concepts referred to were listening skill by Grace, Tania, and Cath, and intimacy by Roger.

Only one of the participant’s responses – Utako’s – explicitly resembled the statement used by me to summarise my interpretation of the work’s meaning, and in the communication of a meaning or purpose the piece may be regarded as unsuccessful in most cases. The piece had more success in eliciting discussion referring to its key concepts of spatial perception and attention, however this greater success was limited and did not extend to the majority of the group, and in communication of its key concepts the piece was only partially successful.

Judging by the experiences of the participants who listened to it, Over hear elicited a range of meanings in its interpretation by listeners. The most cited concept – discussed by five participants – in relation to the work’s meaning was spatial perception or spatial relationships between sounds; all of those who referred to it were also those who had experienced the work’s contents and forms of listening as intended. The next most commonly referred to concept was musical meaning, although this only occurred in four instances. No one idea appeared in the experiences of the majority of participants.
Reworking

Given its lack of success in structuring experience as intended in four out of eleven participants, and in communicating my interpretation of its meaning or even key concepts in the majority of cases, there was a strong indication for reworking this piece.

The main flaw in structuring the content and form of experience appears to have been in the lack of recognition of the freestanding speaker as a sound source in a significant number of listeners. In terms of the communication of meaning and key concepts, the failure to communicate the key concept of spatial perception also appears to be tied to lack of recognition of the freestanding speaker, or in those who did recognise it, its significance.

In reworking the piece, ensuring recognition of the freestanding speaker as a sound source, following establishing the headphones as a sound source, was a main priority. Although I felt the sound content’s musical meaning may have distracted some listeners from the spatial and attentional elements of the piece, altering the sound content in any significant way seemed to me to transform its character into that of another piece altogether, defeating the purpose of revision, and of the knowledge gained testing the piece in its draft state.

To better elicit awareness of the headphones and the freestanding speaker as distinct sound sources, for the final work I chose to rearrange the locations of the sound elements present in listening to the work, in a way that I believed would direct listener attention more reliably. These were: the two parts of the recorded trio originally played back through the headphones, the third part of the trio originally played back through the freestanding speaker, and the ambient environmental sound of the space in which the piece was experienced.

The revised and publicly exhibited version of Over hear relocated the least attended to of the original sound elements (the room ambience) in the initial sound source (the headphones), as a recording of the ambience of the space.\(^2\) I relocated the remaining

\(^2\) I also considered using a live stream from a microphone placed in the room.
Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

sound elements – the three parts of the recorded piece – to three freestanding speakers, spread at different distances to the listener in the space. The choice of the speakers’ exact placement had no particular motivation beyond a desire to draw attention spatially further and further away from the listener’s body and the headphones, and to generate interest in this spatial expansion. They were arranged in a curve beginning with one speaker forward and slightly to the left of the listener, one further forward and to the left, and one as far forward and to the right as possible given the central position of the listening station to the room, and unwanted reflections from proximity to the walls of the space.

Figure 7: *Over hear* as exhibited at VCA Student Gallery, February 2015, side view
Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

With this arrangement, I expected that listeners would experience the impression of listening to a relatively unremarkable (although uncanny due to its duplication of the environment) sound emitted from the headphones, accompanied by the spatially and attentionally focused, exclusionary form of listening customary when using headphones. I also expected that beginning the piece with environmental sound would mean beginning it with a non-musical form of listening; thereby weakening the dominance of the musical listening that had occurred in the showings. As the freestanding speakers began to emit the more attention-drawing sound of the guitars, I then expected that listeners would extend their attention to the speakers as well as the headphones, shifting their attention between and around the virtual and real spaces, and adopting a more spatially flexible form of listening.

In terms of meaning or purpose, by having this more obvious spatial shift, and the additional spatial relationships between the multiple freestanding speakers, I expected that listeners would interpret spatial perception more clearly as a key concern of the piece.
I also expected that the initial focus on the sound element that would normally be ignored listening to a sonic artwork using musical sound – the room ambience – would signify more clearly the importance of attention.
Memory walk

Figure 9: Memory walk as exhibited at VCA Student Gallery, February 2015

Inspiration

Memory walk (Robinson, 2014b) was inspired by the phenomenon of sound walks – a creative/curatorial practice common in the field of acoustic ecology – and driven by the idea of a sound walk in which the listener is not complicit, and doesn’t know that they are being guided through a curated sonic environment until the walk is over. To achieve this unwitting sound walk, I reasoned that I could tell listeners to go to a site where they could find an artwork, and then control the route to that site, thereby controlling the sound walk that they would perform.

As a way of revealing this unconscious sound walk, I had the idea of playing listeners a recorded version of the walk that they had just done, after its completion, rather than revealing it by just telling them verbally or through text. What quickly became apparent
experimenting with recording and listening back to sound walks was that no two walks through a given environment would or could be the same. This inevitable difference meant that a recording of an environment, and the act of listening to it, and a listener’s memory of an environment, and the act of listening to that memory, would inevitably come into conflict. From this naturally emerging argumentative structure, between the act of listening to a recorded experience in the present, and the act of listening to a memory of a version of that experience in the past, came the focus of the piece.

I took two further steps to arrive at the final conception of the piece. First was the addition of an inversion of the conflict between listening to memory and listening to a recording in the present. I thought that if I could bring these aspects of listening into conflict through duplication of an experience, I could also draw in listening’s predictive element by pre-empting listeners’ future actions, and duplicating them. I achieved this by adding a recording of the walk away from the site of listening at the end of the piece.

The final step in the work’s conception was the layering of the recorded experiences, nesting one cycle inside of another of: walking into, sitting and listening in, and walking out of the listening location. As first, I did this as an experiment to attempt to make the piece independent of its showing site, and thereby lessen the necessary control of that site. I conceived of the nesting as synthesizing the entire cycle – the walk, the recorded walk, the pre-empted walk out, and the actual walk out – and I added video to make this synthesized experience more immersive. As it turned out, showing this nested version of the piece at the site where I had recorded it generated a far more intense experience, as the multiple layers of memory of the variations of the walk competed in the minds of listeners, and interacted with the visual stimuli on the screen.

Realisation
As shown to the research participants, Memory walk consisted of a video and binaural audio recording of the following events:

- The walk up the stairs to, and into my flat, its kitchen, and sitting down at a table;
Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

- Listening to an *audio recording* of the walk up the stairs to, and into my flat, its kitchen, sitting down at a table and listening to a period of silence, the walk leaving the flat, and walking down the stairs;
- The walk leaving the flat, and walking down the stairs.

I recorded the audio for the piece using in-ear wearable binaural microphones and a digital field recorder, and I filmed the video on a smartphone camera. I made the piece by recording myself walking up my stairs and into my kitchen, listening to a period of silence, and walking out of my flat and down my stairs. I then made another recording of myself walking up my stairs and into my kitchen, listening to the previous recording, and walking out of my flat and down my stairs.

I presented the work on a laptop computer and attached headphones. For seven of the eleven participants the viewing site was the same as the filming site, in effect producing a three-layered experience of the sound/memory walk for these participants: doing the walk, watching and listening to the walk, and listening to the walk. At the showings I asked the participants to sit down, put on the headphones, and press the spacebar on the computer to begin playback of the piece.

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53 It is also worth noting that I filmed the draft piece in portrait orientation. I intended the choice of format and quality to signal the video’s subordinate role as a supplement to the relatively high fidelity audio, working against the more customary expectation that audio supplements a visual presentation.
Chapter 3:

Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

Figure 10: Memory walk as exhibited at VCA Student Gallery, February 2015, walk in

Figure 11: Memory walk as exhibited at VCA Student Gallery, February 2015, listening
Chapter 3:
Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

Figure 12: Memory walk as exhibited at VCA Student Gallery, February 2015, walk out

Intended structuring of content and form of listening

In experiencing the artwork, I expected that initially the listeners would experience the impression of listening to unremarkable environmental sounds; this was the initial expected content of listening. Given the impression of listening to unremarkable environmental sounds, I expected listeners to engage in the passive, relatively inattentive form of listening that is customary to listening to the familiar and/or mundane; this was the initial expected form of listening.

With the onset of the second, audio-only recording of the walk, I expected this impression to change to one of listening to unremarkable environmental sounds, and the recollection of the previous version, and the prediction of what was about to happen based on that version; this was the subsequent expected content of listening. Given the impression of listening to sound and recollection and prediction, I expected listeners to engage in a more temporally mobile, memory critical form of listening; this was the expected subsequent form of listening.
Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

To structure a critique of listening in its being experienced, *Memory walk* used a shift or ambiguity in the context of the listened to – in this case from listening to sound occurring in the present, to listening to sound occurring in the present and past and future – to engage multiple forms of listening and place them in conflict.

For the artwork to have been successful on the level of structuring experience as critique, the participants’ descriptions of the contents and forms of their experiences throughout the duration of the work had to align with the expected contents and forms described above.

My interpretation of the work’s meaning or purpose

My interpretation of the meaning or purpose of *Memory walk* was as an exploration of the interrelationship between, and overlap of, sensing the present, remembering the past, and imagining the future that occurs in listening, and as a demonstration that sensing, and remembering, and predicting are constantly present and interacting elements in the perceiving of sound.

For the work to have been successful in communicating my interpretation of its meaning or purpose, the listener’s interpreted meaning or purpose had to contain comments that reflected my statement above, using concepts of: memory, imagination, and time.

Experienced structuring of content and form of listening

In their descriptions of experiencing *Memory walk*, all of the participants reported initially listening to unremarkable environmental sounds, matching the initial expected content of listening, and engaging in passive, relatively inattentive listening in the first section of the piece, matching the initial expected form of listening. Utako: “one third from the beginning was something I could expect”, “sounds itself was not unusual”, Jane: “I didn’t have to work too hard to understand what was going on in the first part”, “it’s a pretty mundane subject”, Erin: “everything, yeah it seemed like a normal, like I was listening to everything, everything was familiar”.
Roger

Initially Roger’s experience of the piece was of listening to unremarkable environmental sounds, “‘at beginning, one third from the beginning was something I could expect or I could comprehend’, ‘sounds itself was not unusual, very familiar sounds of urban noise and walking sounds’".

Cath

Initially Cath’s experience of the piece was of listening to unremarkable environmental sounds “‘I don’t know that was really, yeah it was really full on, I knew that sounds weird because it wasn’t, it’s just an everyday thing’".

Dave

Initially Dave’s experience of the piece was of listening to unremarkable environmental sounds, “I was listening more to the way familiar sounds were being rephrased in a slightly different context”.

Damian

Initially Damian’s experience of the piece was of listening to unremarkable environmental sounds. “‘At the start I was listening to the sound of the traffic in the background, also the actual sound of you walking up the steps up to your house, you going on a, I guess, some sort, like a journey’, “it was a little bit kind of dull at times”.

Grace

Initially Grace’s experience of the piece was of listening to unremarkable environmental sounds “I didn’t have to work too hard to understand what was going on in the first part”, “it’s a pretty mundane subject going upstairs and sitting at a table”.

Meg

Initially Meg’s experience of the piece was of listening to unremarkable environmental sounds “‘Yeah, the, at the start didn’t seem unusual because like the sounds matched with what was going on’, “when I like, it was almost like my point of view was walking it was just the sounds were just happening’".

Tania

Initially Tania’s experience of the piece was of listening to unremarkable environmental sounds “‘the door opening, the steps, the pulling out of the chair, scrunching of that door specifically’”.

Utako

Initially Utako’s experience of the piece was of listening to unremarkable environmental sounds, “‘at beginning, one third from the beginning was something I could expect or I could comprehend’, ‘sounds itself was not unusual, very familiar sounds of urban noise and walking sounds’”.

Table 12: Initial content and form of experiencing Memory walk (verified)

<table>
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<tr>
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<tbody>
<tr>
<td>Utako</td>
<td>Initially Utako’s experience of the piece was of listening to unremarkable environmental sounds, “‘at beginning, one third from the beginning was something I could expect or I could comprehend’, ‘sounds itself was not unusual, very familiar sounds of urban noise and walking sounds’”</td>
<td>Utako’s experience of listening to unremarkable environmental sounds suggests engagement in the passive, relatively inattentive form of listening that is customary to listening to the familiar and/or mundane.</td>
</tr>
<tr>
<td>David</td>
<td>Initially David’s experience of the piece was of listening to unremarkable environmental sounds, “‘he comes up the stairs and then, then he sits down and plays it’”</td>
<td>David’s experience of listening to unremarkable environmental sounds suggests engagement in the passive, relatively inattentive form of listening that is customary to listening to the familiar and/or mundane.</td>
</tr>
<tr>
<td>Jane</td>
<td>Initially Jane’s experience of the piece was of listening to unremarkable environmental sounds “‘first you’re listening to the sound in the headphones and then you’re kind of, and then you’re listening to the clock outside’, “it was very familiar because I’ve walked up those same stairs many times, I wasn’t experiencing a new set of sounds’”</td>
<td>Jane’s experience of listening to unremarkable environmental sounds suggests engagement in the passive, relatively inattentive form of listening that is customary to listening to the familiar and/or mundane.</td>
</tr>
<tr>
<td>Grace</td>
<td>Initially Grace’s experience of the piece was of listening to unremarkable environmental sounds “‘I didn’t have to work too hard to understand what was going on in the first part’, “it’s a pretty mundane subject going upstairs and sitting at a table’”</td>
<td>Grace’s experience of listening to unremarkable environmental sounds suggests engagement in the passive, relatively inattentive form of listening that is customary to listening to the familiar and/or mundane.</td>
</tr>
<tr>
<td>Erin</td>
<td>Initially Erin’s experience of the piece was of listening to unremarkable environmental sounds. “‘I could see the surroundings then I was listening to just the sound of the footsteps’, “Everything, yeah it seemed like a normal, like I was listening to everything, everything was familiar, I knew where everything was coming from, originally’, “initially I was listening to the obvious sort of things that were going on’”</td>
<td>Erin’s experience of listening to unremarkable environmental sounds suggests engagement in the passive, relatively inattentive form of listening that is customary to listening to the familiar and/or mundane.</td>
</tr>
<tr>
<td>Tania</td>
<td>Initially Tania’s experience of the piece was of listening to unremarkable environmental sounds “‘the door opening, the steps, the pulling out of the chair, scrunching of that door specifically’”</td>
<td>Tania’s experience of listening to unremarkable environmental sounds suggests engagement in the passive, relatively inattentive form of listening that is customary to listening to the familiar and/or mundane.</td>
</tr>
<tr>
<td>Meg</td>
<td>Initially Meg’s experience of the piece was of listening to unremarkable environmental sounds “‘Yeah, the, at the start didn’t seem unusual because like the sounds matched with what was going on’, “when I like, it was almost like my point of view was walking it was just the sounds were just happening’”</td>
<td>Meg’s experience of listening to unremarkable environmental sounds suggests engagement in the passive, relatively inattentive form of listening that is customary to listening to the familiar and/or mundane.</td>
</tr>
<tr>
<td>Damian</td>
<td>Initially Damian’s experience of the piece was of listening to unremarkable environmental sounds. “‘At the start I was listening to the sound of the traffic in the background, also the actual sound of you walking up the steps up to your house, you going on a, I guess, some sort, like a journey’, “it was a little bit kind of dull at times’”</td>
<td>Damian’s experience of listening to unremarkable environmental sounds suggests engagement in the passive, relatively inattentive form of listening that is customary to listening to the familiar and/or mundane.</td>
</tr>
<tr>
<td>Dave</td>
<td>Initially Dave’s experience of the piece was of listening to unremarkable environmental sounds, “‘I was listening more to the way familiar sounds were being rephrased in a slightly different context’”</td>
<td>Dave’s experience of listening to unremarkable environmental sounds suggests engagement in the passive, relatively inattentive form of listening that is customary to listening to the familiar and/or mundane.</td>
</tr>
<tr>
<td>Cath</td>
<td>Initially Cath’s experience of the piece was of listening to unremarkable environmental sounds “‘I don’t know that was really, yeah it was really full on, I knew that sounds weird because it wasn’t, it’s just an everyday thing’”</td>
<td>Cath’s experience of listening to unremarkable environmental sounds suggests engagement in the passive, relatively inattentive form of listening that is customary to listening to the familiar and/or mundane.</td>
</tr>
<tr>
<td>Roger</td>
<td>Initially Roger’s experience of the piece was of listening to unremarkable environmental sounds, “‘I was listening to the sound of you going up and down your stairs and sitting down’”</td>
<td>Roger’s experience of listening to unremarkable environmental sounds suggests engagement in the passive, relatively inattentive form of listening that is customary to listening to the familiar and/or mundane.</td>
</tr>
</tbody>
</table>
As the piece progressed, all of the participants reported listening to the sounds played back in the present, and to remembered and/or imagined versions of the sounds, and of comparing these with the sound sensed in the present. This matches the expected subsequent content of listening. They also appear to have engaged in a more temporally mobile, memory critical form of listening, matching the expected subsequent form of listening. Jane: “then listening to sort of a memory of that sound, and then, it’s different levels of memory and actual stimulus, and what’s happening outside all at once, so at different points I was listening to different things”. Meg: “it was like you were listening to the future or something”. Cath: “I wasn’t sure if I was using my memory of traffic, footsteps, and not imagination but really because, but having done it myself, but I know it wasn’t the exact sounds that I heard today because it was different traffic, maybe the birds weren’t there this morning when I arrived”.

Table 13: Subsequent content and form of experiencing Memory Walk (verified)

<table>
<thead>
<tr>
<th>Participant</th>
<th>Content</th>
<th>Form</th>
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</thead>
<tbody>
<tr>
<td>Utako</td>
<td>Later in her experience of the piece, Utako came to be listening to her recollection of what had recently happened. “Listening to what I was listening to before”, and to her prediction of what was going to happen “I lost the sense of time, of present, of being present, or being past or being in the future”, in addition to listening to what was occurring in the present. Utako’s experience of listening to perceived, remembered, and predicted sound suggests a change to a more temporally mobile and intentionality critical form of listening. In addition to this, Utako’s experience of the piece also focused on the interaction of the visual and aural elements, and feelings of empathy with the performer in the video. “I guess it’s also to do with visual image, but whether I’m viewer, or whether I became part of the actor in the video, or maker of sound and listener of sound, I was joining.” Also of claustrophobia “watching but also, also somehow physically, I said trapped, physically, I was also paying attention to my, my own physical being, my location, these headphones”.</td>
<td></td>
</tr>
<tr>
<td>David</td>
<td>Later in his experience of the piece, David came to be listening to his recollection of what had recently happened, and to his prediction of what was going to happen, in addition to listening to what was occurring in the present. “Then it’s the same sound from the start, then it actually reverses, and you’re processing that and I think without having that sort of, these two levels of memories as I was saying before the memory of the what it is to have footsteps on a stair and cars going by and doorhandles being opened. Versus the short term memory of the directionality of the sound so going one way or the other and going into the door out of the door I think you can sort of pick that if you’re listening so I guess I was listening quite critically. …Trying to piece it together, and also at that point I kind of was, I realised that the video wasn’t in sync the video”, “its it’s really linked to the memories of it in the sense that I already had memories of that walk”. David’s experience of listening to perceived, remembered, and predicted sound suggests a change to a more temporally mobile and intentionality critical form of listening. In addition to this, David’s experience of the piece also focused on the interaction of the visual and aural elements, and the effect of the video on his ability to focus his attention and access memories. “My experience with it was when you’re presented with the visual stimuli you listen let’s say even when you’re not so interested in it, you listen more intently, and the visual stimuli in some way syns up with it”.</td>
<td></td>
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</tbody>
</table>
Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

<table>
<thead>
<tr>
<th>Participant</th>
<th>Content</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jane</td>
<td>Later in her experience of the piece, Jane came to be listening to her recollection of what had recently happened, and to her prediction of what was going to happen, in addition to listening to what was occurring in the present. “Then listening to sort of a memory of that sound, and then, it’s different levels of memory and actual stimulus, and what’s happening outside all at once, so at different points I was listening to different things”. Jane’s experience of listening to perceived, remembered, and predicted sound suggests a change to a more temporally mobile and intentionality critical form of listening. In addition to this, Jane’s experience of the piece also focused on the interaction of the visual and aural elements, and sounds’ evocation of visual memories.</td>
<td></td>
</tr>
<tr>
<td>Grace</td>
<td>Later in her experience of the piece, Grace came to be listening to her recollection of what had recently happened, and to her prediction of what was going to happen, in addition to listening to what was occurring in the present. “I was listening for discrepancies I think”, “and in the second part you’re like ‘oh this sounds like what I just watched’ so I was kind of listening to see if it was the same. And I guess that’s how I picked up that some things weren’t the same so it can’t have been the same recording, which kind of makes sense in a way, how could it have been the same recording? And then at one point I thought is this live or has the sound been put over the top of this video, like, I don’t know what was going on”. Grace’s experience of listening to perceived, remembered, and predicted sound suggests a change to a more temporally mobile and intentionality critical form of listening. In addition to this, Grace’s experience of the piece also focused on the interaction of the visual and aural elements, and sounds’ evocation of visual memories “so you’re kind of visualising even though you’re sitting there watching a iPod playing the sound you’re actually visualising what you’re just seen”.</td>
<td></td>
</tr>
<tr>
<td>Erin</td>
<td>Later in her experience of the piece, Erin came to be listening to her recollection of what had recently happened, and to her prediction of what was going to happen, in addition to listening to what was occurring in the present. “But then I realised once it had been played again that there was more that I hadn’t heard the first time.” “The second time I was listening to the sound of birds and traffic, and then I was listening to yeah the clock, and listening to, like when I was sitting at the table it was listening to like, you could hear like the swallowing, you could hear, this, it was like everything was a lot louder and accentuated than usual”. Erin’s experience of listening to perceived, remembered, and predicted sound suggests a change to a more temporally mobile and intentionality critical form of listening. In addition to this, Erin’s experience of the piece also focused on the interaction of the visual and aural elements, and sounds’ evocation of visual memories. “The third time it was, going down the stairs, listening to more specific things like how many steps there are, and the rhythm and like sort of trying to visualise how far down the building it was”.</td>
<td></td>
</tr>
</tbody>
</table>
| Tania       | Later in her experience of the piece, Tania came to be listening to her recollection of what had recently happened, and to her prediction of what was going to happen, in addition to listening to what was occurring in the present. “Then when you played the memory I guess without the visual I became more, more into sort of the abstract of listening, and then also with, tried to draw from the sounds that were considered the periphery of what was actually happening as a result of your behaviour. So there was music or something in the background that I heard that was ‘oh, see, there’s birds around’, which is still listening, just to answer the next question.” “So it brought in another layer of complexity around whether something happened before whether something happened afterwards, and for some reason, and I think I touched on this before, it affected my listening”. Tania’s experience of listening to perceived, remembered, and predicted sound suggests a change to a more temporally mobile and intentionality critical form of listening. In addition to this, Tania’s experience of the piece also focused on the interaction of the visual and aural elements, and sounds’ evocation of visual memories. “I had to draw on some sort of visual, some sort of imagery in my head to go with it”. Tania also seems to have experienced something like acoustic-ecological listening. “As awareness, a listening of the everyday sounds as well, and the echoes of that, because maybe. See if you go to see a live performance, a symphony orchestra for example, you would go there with the intent of listening, so what does that intention mean for you making that meaning and for you to be willing to be listening to that sound. As opposed to the sound just being part of everyday life”.

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150
## Data evaluation

**Chapter 3:**

What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

<table>
<thead>
<tr>
<th>Participant</th>
<th>Content</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meg</td>
<td>Later in her experience of the piece, Meg came to be listening to her recollection of what had recently happened, and to her prediction of what was going to happen, in addition to listening to what was occurring in the present “it was like you were listening to the future or something”.</td>
<td>Meg’s experience of listening to perceived, remembered, and predicted sound suggests a change to a more temporally mobile and intentionality critical form of listening. In addition to this, Meg’s experience of the piece also focused on the interaction of the visual and aural elements, and the effect of the video on her attention. “When the movie was matched with the sounds it was almost just like, easier to listen or something because it was just happening, so I felt like I was attending to it much more purposefully or something when it was like sounds being played but the movie didn’t match to what the sounds were”. Meg also seems to have experienced something like acoustic-ecological listening. “We’re always listening but maybe we don’t always attend, or like don’t know that we’re listening if that makes sense, so there’s a lot of listening that we do, like all the time even when we’re alone when there’s no, like nothing there particularly trying to listen to we still hear”.</td>
</tr>
</tbody>
</table>
| Damian      | Later in his experience of the piece, Damian came to be listening to his recollection of what had recently happened, and to his prediction of what was going to happen, in addition to listening to what was occurring in the present. “Yeah it was interesting it had, I don’t know, overlapped a bit.” “I guess feeling a little bit sort of weird as far as the time goes, you have a certain sense of time how long it will go for but in a way it actually felt a little bit longer.” “Alert to stuff that was in the background as well as the foreground as far as the sounds that I can hear through the cans, and probably kind of expecting something”. | Damian’s experience of listening to perceived, remembered, and predicted sound suggests a change to a more temporally mobile and intentionality critical form of listening. Damian also noted the relationship between the visual and aural elements. “Listening with my peeps visually just looking at the, what was presented to me at the laptop and also just hearing the cans as well, I guess visually as well as auditorily”.
| Dave        | Later in his experience of the piece, Dave came to be listening to his recollection of what had recently happened, and to his prediction of what was going to happen, in addition to listening to what was occurring in the present “it was making me actively remember”. | Dave’s experience of listening to perceived, remembered, and predicted sound suggests a change to a more temporally mobile and intentionality critical form of listening. In addition to this, Dave’s experience of the piece also focused on the interaction of the visual and aural elements, and the effect of the video on his attention. “Reliving that first bit auditorily I could, I had all the visual cues for where we were, but then when you, I imagine, walked out without the visual cues, just sonically. I was kind of like well I’ve gone on that journey a second time auditorily up, but now we’re going we’re retracing the steps, and I was wondering if it would have been as vivid if I hadn’t seen it and just. I was just sort of I think it was about exploring the visual sort of audio interplay between experience and how the actually interplay with each other.” “I think it was an exploration of the visual audio, and sort of how they work in memory and experiences, our visual and audio senses, how they work, yeah”. |
Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

<table>
<thead>
<tr>
<th>Participant</th>
<th>Content</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cath</td>
<td>Later in her experience of the piece, Cath came to be listening to her recollection of what had recently happened, and to her prediction of what was going to happen, in addition to listening to what was occurring in the present. “I wasn’t sure if I was using my memory of traffic, footsteps, and not imagination but really because, but having done it myself. But I knew it wasn’t the exact sounds that I heard today because it was different traffic, maybe the birds weren’t there this morning when I arrived.”</td>
<td>Cath’s experience of listening to perceived, remembered, and predicted sound suggests a change to a more temporally mobile and intentionality critical form of listening. Cath also experienced a strong emotional reaction to the piece. “It was emotional like it made me actually feel quite, it was nice to be home, like that thing when get up to shut the door and block everything out was, yeah, but I did find it a bit, I don’t know if the word is stressful or anxious but maybe a bit of anxiety. Yeah, but the emotional thing was not a bad, the emotional thing was really nice, but then all the noises were, made me feel a bit anxious but then I was able to start maybe dissecting them a bit and not feel so overwhelmed by it, so it was everything and that and more”. Cath also experienced feelings of empathy with the performer in the video. “I felt like it was a much more physical thing, as in actually doing it or your body was doing it or you were like. Yeah I felt like it was more a physical than just a listening thing, because it affected so many, like, I felt a little bit puffed from it a bit, yeah, it certainly had a physical, I had a physical reaction to it”.</td>
</tr>
<tr>
<td>Roger</td>
<td>Later in his experience of the piece, Roger came to be listening to his recollection of what had happened, and to his prediction of what was going to happen, in addition to listening to what was occurring in the present. However in Roger’s case having experienced the piece several times before, his remembering and predicting were in relation to his past experiences of the piece as a whole. “What my attention was going to was occasionally, there were points where I was wondering if I would have that same kind of degree of enchantment that I got the first time I heard it. But I think because it wasn’t new it was less, just felt like it was that was diluted, really”.</td>
<td>Roger’s experience of listening to perceived, remembered, and predicted sound suggests engagement of a more temporally mobile and intentionality critical form of listening.</td>
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</table>

In all cases, the participants experienced the contents and forms of listening as intended in this piece. By this test of the artwork’s intent, it was entirely successful for the sample group in structuring the experience of listening as intended.

Interpreted meaning or purpose

Despite its success in structuring experience across the group, none of the participants responded to the question as to the piece’s meaning or purpose with statements closely analogous to the one used by me above. Most of the participants seemed strongly affected by the piece, and their descriptions often referred to the key concepts outlined in the intent, however their interpretations of the work’s meaning or purpose were quite diverse.
**Table 14: Interpreted meaning or purpose of Memory walk (verified)**

<table>
<thead>
<tr>
<th>Participant</th>
<th>Discussion of meaning/purpose</th>
<th>Concepts in meaning/purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utako</td>
<td>“The importance of meaning of listening was becoming less in this piece, the other things, watching and feeling, became very strong this time”</td>
<td>The relationship between auditory and visual perception. Emotionally effected listening.</td>
</tr>
</tbody>
</table>
| David      | “I don’t know because I’m not confronted by it, I think that it was I guess to demonstrate what the advantage I guess of having vision matching the sound maybe”  
“To demonstrate the visual nature of memories and how this can match up with sound and aid your experience of it”  
“I’d be interested to see what happens when you give this to someone who’s never walked up those stairs and if they also feel that it aided their passage into the second part of that where you don’t get to see the vision but you’re just experienced it”                                                                                                                                                                                                                                                                                                                                 | The relationship between auditory and visual perception. Demonstration. Memory.                                                                                                    |
Regarding the intended core concepts, four of the participants – David, Jane, Tania, and Dave – referred directly to memory in their discussion of the piece’s meaning. David: “to demonstrate the visual nature of memories and how this can match up with sound and aid your experience of it”. Jane: “about integrating several of the elements that the earlier pieces have got me thinking about listening, so you know about visual stimulation and about sound memory and immediate sound memory”. Dave: “I think it was an exploration of the visual-audio, and sort of how they work in memory and experience, our visual and audio senses, how they work, yeah”.

A further two participants – Grace and Erin – referred directly to differentiating sounds across time and versions, displaying an experience of interaction of memory and present perception, if not an explicit awareness of this phenomenon as a ‘meaning’. Grace: “I guess my first impression was ok I have to, my brain told me to differentiate between the sound, sounds, two things that are like apparently very much the same”. Erin: “that sound, I guess that you miss things when you listen to it the first time around, and that sound is a lot louder, or you need to listen more when you can’t see what’s going on”.

Besides those expected, the participants also used the following concepts prominently in their discussions of meaning. The closest thing to a dominant theme in the participants’ responses was the interaction of visual and auditory perception, emerging in six of the

<table>
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<tr>
<th>Participant</th>
<th>Discussion of meaning/purpose</th>
<th>Concepts in meaning/purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roger</td>
<td>“Yeah I think they’re two very different words, and I think in this particular case there was a purpose which was to experiment with the idea of, forcing an act of listening, like it was clearly I was meant to listen to the sound of this, and I had my headphones on, and they were trying to, there was no indicator that it would have been anything other than I’m meant to listen to this, bit like going to a concert, so that was its purpose was to listen to the sound of these things and to then gain some insight into the process of listening through it, I think the meaning of it, outside of its purpose was that, it had this really nice heightened sense of a very banal act, then kind of being heightened through the fact of the media that it was put through, and the effect of that media, sounds were a lot louder than, maybe not a lot louder than they actually really are but because they were presented through headphones, then they did appear a lot louder, and also it sounded like there was a lot of compression going on there as well, so you kind of lost that sense of actual depth of space, and in that I think it kind of made it, it drew the listener into the experience of walking up and down the stairs, and then into the experience of sitting and listening, in fact, it was almost like a relief to sit and listen, because that sense of correlation between the sound, which was too close, and the somewhat claustrophobic spaces through which you were walking, or the very purposeful spaces, they’re not spaces for anything other than to get somewhere else, was… It was nice to just kind of step out of that degree of intention, and then to return to it was kind of nice too, bit like an A B A, I V I. So I think the meaning of it was, I think that meaning in there was that sense of kind of, allow yourself to pay greater attention to the experiences that you have”</td>
<td>Involuntary listening, Attention, Quality of listening</td>
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Participating in the discussion, Roger expressed his thoughts on the piece’s purpose, indicating that the artwork aimed to experiment with the idea of forcing an act of listening. He highlighted the heightened sense of a banal act through the media and compression, drawing the listener into the experience of walking and listening. Roger’s observation on the heightened sound through headphones and its effect on the listener’s experience of depth and space adds a layer of reflection on the artwork’s purpose. The artwork’s purpose, according to Roger, was to listen to the sound of these things and gain insights into the process of listening through it. This experience was further enriched by the contrast between walking and sitting, offering a relief from the claustrophobic spaces.

Involuntary listening, Attention, and Quality of listening were identified as prominent concepts in the participants’ discussions of meaning. The interaction of visual and auditory perception emerged as a dominant theme in their responses, reflecting the participants’ exploration of how these elements work in memory and experience, suggesting a heightened awareness of the auditory and visual elements presented in the artwork.

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154
participants’ discussions of meaning. Utako: “the importance of meaning of listening was becoming less in this piece, the other things, watching and feeling, became very strong this time”. Grace: “I kind of thought it was to differentiate between the sound and the video, like two things that are almost exactly the same but they can’t possibly be the same, because it obviously when it happened or whatever”.54

Meg, Cath, and Roger discussed their lack of agency with regard to listening under certain circumstances. Meg: “we’re always listening but maybe we don’t always attend, or like don’t know that we’re listening if that makes sense, so there’s a lot of listening that we do, like all the time even when we’re alone when there’s no, like nothing there particularly trying to listen to we still hear”. Cath: “just how, well my everyday has an impact, but I may not be aware of that, but how it affects how I react and, even though I may not be aware that it’s things that are going on around me are actually affecting how I’m reacting to situations”. Roger: “I think in this particular case there was a purpose which was to experiment with the idea of, forcing an act of listening”.

Attention, awareness, or quality of listening appeared as a key concept in Erin, Tania, Meg, Damian, Cath, and Roger’s discussions of the work’s meaning. Tania: “maybe an awareness, a listening of the everyday sounds as well”, “what does that intention mean for you making that meaning and for you to be willing to be listening to that sound”. Damian: “I guess to discern which is the way people listen to everyday sounds, or the way we kind of listen to stuff in the foreground/background”. Roger: “I think the meaning of it, outside of its purpose was that, it had this really nice heightened sense of a, very banal act, then kind of being heightened through the fact of the media that it was put through”. “I think that meaning in there was that sense of kind of, allow yourself to pay greater attention to the experiences that you have”.

The most unexpected experiential results and concept discussed were the emotional effects, and emotionally affected listening the work produced in Utako and Cath. Utako experienced a strong sense of claustrophobia that she returned to throughout the interview: “I don’t know what is the meaning really but the doubling headphones is incredible, trapped”. Cath experienced a sense of being emotionally overwhelmed that she also returned to

54 This emphasis on audio-visual interaction in the participants’ discussion suggests that a synchresis effect may also have been at play, although this was not my intent (Chion, 1994).
Data evaluation: What critiques of listening do these artworks intend to form, and what is the experience of listening to artworks that intend to critique listening?

throughout the interview: “not being aware that what I’m hearing, or listening to affects, yeah my emotions and my reactions, I think I would not have been aware of that before, ever before”.

None of the participants’ discussions of the work’s meaning or purpose explicitly resembled the statement used by me to summarise my interpretation of its meaning, and in the case of this piece clear communication of a meaning or purpose did not reliably occur. As for eliciting discussion referring to its key concepts of memory, imagination, and time, imagination was not explicitly discussed by any of the participants, and memory and time, or more accurately differentiating sounds across time, together were only discussed in six of the interviews. In this regard the work was only partially successful in achieving its intent, although it did communicate its key concepts some of the time.

Despite its lack of success in overtly communicating a meaning or function, or in communicating key concepts, and the lack of a uniform emergent meaning or purpose, all of the participants appear to have found Memory walk strongly meaningful, and had much to say about it. Judging by the concepts that emerged most often, the work’s meaning revolved around attention, awareness, or quality of listening, memory, or differentiation of sound across time, and the interaction of visual and auditory perception.

Reworking

This piece showed evidence of remarkable consistency in its structuring of listeners’ experience, and remarkable inconsistency in the interpretation of its meaning or function by listeners. Despite this latter inconsistency, the majority of participants found the experience of piece to be similarly intense, and meaningful. This presented an interesting problem as to the question of its refinement for the better achievement of its goals, as I did not want to lessen the intensity and meaningfulness of the effect it had on its listeners.

The stability of structure of experience, and the stability of intensity of experience, for me offset the instability or diversity of interpretation, and made me doubt the need for,
or validity of, a stable interpretation in the case of this piece, and I made no changes to it to elicit more consistent interpretations of its meaning.

Regarding the intensity of experience, one change, or more accurately customisation I did make to the piece was to return to the idea of making it specific to the site of showing. I made this choice as all of the participants who experienced the work at my home (the site of recording) reported that this factor greatly intensified the experience of the piece, and several made a point of recommending site specificity as a desirable element in the work. Beyond this, I was happy with Memory walk as it stood in its draft form, and kept it the same.

**Summation**

Over the course of this chapter, I have depicted how I applied the methodology laid out in the previous chapter, to the production and evaluation of art that takes criticality of listening as its core concern, informed by the range of pre-existing critiques of listening discussed earlier in the literature review. I have described the critiques of listening the sonic artworks of this project intended to form, the inspiration and realisation of the works, and described and evaluated the experiences listeners had of listening to them, determining their success in achieving their intent in:

- Stimulating critical engagement with the concept of listening across the showing process;
- Achieving alignment of the content and form of the participants’ experiences of the works individually, with the work’s intended content and form of experience;
- Achieving alignment of the artist’s, and the participants’ interpretations of the meaning or purpose of the works.

Firstly, as a group, in their draft versions the works were successful in eliciting critical engagement with the concept of listening across the showing process.

Secondly, in terms of achieving alignment of the intended and experienced contents and forms of experience:
I’m here to listen was successful for the majority of participants in structuring the experience of listening as planned. All participants experienced the intended reciprocal, and solitary, forms of listening, and all besides Meg experienced the intended contents of: listening to a person; and listening to something other than a person.

Sound, proof was successful for the majority of participants in structuring the experience of listening as planned. Most participants experienced the intended neutral, and imagination or memory directed forms of listening, and most experienced the intended contents of: the sound physically emitted by the Box with the sound of its own making; and imagined or remembered sounds. The exceptions recognised my interpretation of the meaning or purpose of the piece, and rejected the notion of accepting their experiences of imagining and remembering as part of listening along with it.

Over hear was successful for six out of the eleven participants in structuring the experience of listening as planned. These six experienced the intended spatially and attentionally focused, exclusionary, and inclusive and spatially flexible forms of listening, and experienced the intended contents of: sound emitted by the headphones alone; and sound emitted by the freestanding speaker as well as by the headphones. Roger experienced the intended contents but only the subsequent form; the remaining four participants only experienced the initial expected content and form of listening.

Memory walk was successful for all members of the group in structuring the experience of listening as planned. All participants experienced the intended passive, relatively inattentive, and temporally mobile, memory critical forms of listening. All participants also experienced the intended contents of: listening to unremarkable environmental sounds; and listening to unremarkable environmental sounds and recollection of the previous version and prediction of what was about to happen based on that version.

Finally, in terms of achieving alignment of the artist’s and participants’ interpretation of the meaning or purpose of the works:
• *I’m here to listen* elicited no single consistent clear meaning or function, but overall it did stimulate critical thought about the behaviour and roles of listeners and speakers with relative consistency.

• *Sound, proof* did elicit a consistent meaning or function: that listening is not dependent on sound. It also consistently stimulated critical thought about the relationship between the heard, imagined, and remembered.

• *Over bear* only elicited one response that explicitly resembled my formulation of its meaning or purpose, and no one idea appears to have dominated the experiences of all participants. It elicited discussion of its key concepts of spatial perception in five cases, and attention in three, while four focussed on its musical meaning.

• *Memory walk* elicited no consistent meaning or purpose from its listeners that aligned with my interpretation. In terms of eliciting discussion of its key concepts, the participants did not explicitly discuss imagination. They did discuss memory and time, or differentiating sounds across time in six interviews. Recurring concepts were attention, awareness, and quality of listening, memory, and the interaction of visual and auditory perception. Despite no apparent consistent meaning or purpose, all of the participants found *Memory walk* intensely meaningful, and for several it was the most meaningful of the set.

I revised the works in light of participants’ responses, for their final versions as exhibited at the VCA Student Gallery in February 2015:

• For *I’m here to listen* I concealed the computer to eliminate it as a likely sound source, and used a printed instruction card, and a purpose built control button, to replace the computer’s interface elements. I did this to prolong the illusion of speaking to a real person, and the initial reciprocal listening state.

• For *Sound, proof* I made no changes.

• For *Over bear* I relocated the room ambience (as a recording) to the headphones, and the three recorded guitar parts to three freestanding speakers, arrayed at different distances to the listener. I did this to intensify attention to the
relationships between the headphones and speakers, and to weaken the musical listening that dominated the showings.

- For Memory walk, I made the piece specific to the exhibition site, and to the soundscape in and around it. I did this to ensure the heightened intensity reported by participants who experienced the draft version of the piece at its recording site.

Overall, the findings of this research process indicated that:

- Sonic artworks made using the creative rationale of this project, together as a group *can*, and *are likely to*, elicit generalised critical reflection on listening.
- Sonic artworks made using the creative rationale of this project *can*, and *are likely to*, structure the experience of listening as a critique of itself, through the elicitation of contrasting or conflicting contents and forms of listening.
- Sonic artworks made using the creative rationale of this project *can* elicit an interpretation of their meaning or purpose that matches that held by the artist, but the likelihood of a match between the artist’s and listeners’ interpretations is contingent on the specific intent and circumstances of a given artwork. However, sonic artworks made using the creative rationale of this project *can*, and *are likely to*, elicit critical reflection matching broader themes of interpretation held by the artist.

From these findings, I have been able to conclude that the rationale for producing sonic artworks justifiable as critiques of listening was, when executed thoughtfully, successful overall; eliciting targeted critical reflection on listening, from an experience structured as a critical engagement with listening; and I can conclude that I have successfully found a solution to this project’s core creative problem.

Even the negative results associated with the works’ least successful aspect – communication of a specific meaning or purpose – appear to have had little negative influence on the other aspects tested, or on the communication of broader themes of meaning or purpose. If I had not expected the artist and audience’s interpretations of the
works’ meaning or purpose to be so alike, and if I had more clearly anticipated the
difficulty of manipulating musical listening in Over hear, the works would have tested even
more strongly. In redrafting Over hear I made efforts to address the problem of
manipulating musical listening. As to testing the interpretation of a work’s specific
meaning or purpose, if I were to repeat or extend this study I would alter the emphasis
of this metric.

In future, in testing works such as these, I would maintain the evaluation of generalised
critical reflection on listening, and of the structuring of the experience of listening.
However, rather than testing communication of a specific meaning or purpose, I would
focus on the elicitation of themes of reflection, as this seems a more realistic objective,
and on the intensity and meaningfulness of the experience of the work, as this seems a
useful indicator of an artwork being of value to its audience.

In the conclusion to this thesis that follows, I collect the project’s findings and
conclusions, and discuss their implications to creative and research practice.
Conclusion: Can sonic artworks critique listening?

Aim and scope
The core aim of this project was to determine how to produce sonic artworks that could critically engage with the act of listening. I pursued this aim within a scope determined by:

- My role as an artist – placing attention on the act and methods of art production, and the adaptation of ideas to art production;
- The nature of the problem – requiring attention to listeners’ experiences of artworks as well as the artist’s experience of making them, and requiring mechanisms to establish whether the project’s artworks resulted in listener experiences of critical appraisal of listening.

This scope clarified the problem as being one of defining a method for producing works that were justifiable as critiques of listening from the artist’s perspective, and defining and applying a complementary method for determining whether those artworks resulted in critical reflection on listening by listeners.

Overview: findings, conclusions, implications
To the resolution of this problem, in Chapter 1: Literature Review: How has listening been critiqued in the past? I sought existing methods for producing artworks that engage critically with the act of listening whilst being listened to. I consulted literature from a range of research and creative disciplines, and analysed it in terms of how the writers and artists had enabled, enacted, and encouraged critical engagement with listening.

I identified Ihde (1976/2007) as my nearest model for critiquing listening through the listening act, and his description (therefore virtualisation) of an act of listening that also commented on listening, by expounding on its features. From my reading of Ihde I also found that within listening-in-general there are numerous specialised types of listening. In reading the rest of the literature, this led me to find that the majority of pre-existing
critiques of listening focused on one or other (or sometimes a few) of these specialised types. I also found that the majority of critiques relied on *reading* to elicit criticality, and where my predecessors had used *listening* to elicit criticality, that their critiques were largely implicit, and their intent to affect listening was unclear.\(^{55}\)

From these findings, I concluded that the numerous examples in the literature of ways to enable, enact, and encourage critical engagement with listening-in-general and specialised types of listening, could be generalised to supply numerous objectives for producing sonic artworks.

This conclusion, and the findings that supplied it, had implications to this project – informing my production of its artworks – and have implications beyond it. I, other artists, researchers, or artist-researchers, may take the objectives I interpreted from the literature – what a sonic artwork would have to achieve in order to emulate the various critiques – as the basis for future art, research, or art-as-research.

However, I also concluded that none of these examples demonstrated an extant method that I could apply to deliberately producing sonic artworks as overt critiques of listening. To resolve this project’s problem I would have to devise an original method, aiming to lead listeners through a process of critical engagement with listening, that encouraged critical reflection on listening, taking into account listening’s complexity and multiple specialised types.

As to this conclusion, I followed its implications in devising this project’s methodology, which I have tested here. In future work, other artists, researchers, artist-researchers, or I may also wish to respond to this conclusion in different ways or with different methods, or to modify or elaborate on those presented here. Other researchers may also wish to extend on my interpretation of the literature, for example interpreting innovations in other music traditions (popular, jazz, etc.) as critiques of the act of listening to them.

In *Chapter 2: Methodology: How does an artist justify a sonic artwork as a critique of listening?* I defined an integrated creative-research methodology for producing, and for testing the

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\(^{55}\) As in music’s innovations’ critiques of the act of listening to music
success of, sonic artworks that critique listening. I determined basic criteria for what constituted art of value in the context of this project, and identified precedents to its fundamental aspects of using sound, and affecting mental activity (conceptual art, sonic art, non-cochlear sound art). I then devised a rationale by which, from my perspective as an artist producing artworks, they could be justified as structured as critiques of listening.

In assembling the theoretical material that constituted the creative rationale of this project, I found that listening already self-evaluates through its elaboration of its *schemata*. From this self-evaluating and self-elaborating behaviour of listening schemata, I concluded I could construct an *immanent critique of listening* in an experience of listening, by drawing multiple types of listening (and their schemata) into conflict.

In this project, I followed the implications of this conclusion, and tested it by producing and testing a set of artworks. Other artists, researchers, or artist-researchers could also follow the implications of this conclusion, and also produce and test artworks using this project’s creative rationale, or variations or elaborations on it.

To determine whether the project’s artworks had the desired effect of eliciting critical reflection on listening as well as being structured as a critique of it, I identified what constituted the knowledge of value to this problem: primarily listener’s *abductively inferred knowledge* of their experiences of the works. I then selected a research method appropriate to evaluating this knowledge as data thereby testing the works – heuristic research – and integrated it into my creative process.

I found that the heuristic and creative processes were similar in their exploration and resolution of problems, in terms of their overall structure, and their smaller-scale processes and concepts. I concluded that I could use this similarity to formalise the creative process – namely its showing and redrafting components – *into a research process* with minimal disruption, rather than impose a research process on or around it, and proceeded to devise my integrated creative-research program.

I followed the implications of this conclusion, and based the showing/data collection and redrafting/data evaluation stages of my process on this integrated heuristic creative/research model. Beyond this project, this conclusion and the model arising from
it have implications for art-as-research more widely, and other artist-researchers may wish to use the model presented here, devise variations or elaborations on it, or devise original methodological responses to the similarity between these processes.

Finally, in *Conclusion: Can sonic artworks critique listening?* I described how I applied the rationale for the production of artworks justifiable as critiques of listening, making four original works – *I'm here to listen* (Robinson, 2014), *Sound, proof* (Robinson, 2014), *Over hear* (Robinson, 2014), and *Memory walk* (Robinson, 2014) – and showed them to a group of research participants. I evaluated the participants’ descriptions of their experiences of the works, using my evaluation of their responses to test the works in terms of whether they resulted in:

- Generalised critical reflection on listening across the showing process;
- Experiences structurally equivalent to a critique of listening, matching expected conflicting or contrasting contents and forms of listening;
- Targeted critical reflection on listening, matching the artist’s interpretation of the works’ meaning or purpose, or matching themes associated with the works by the artist.

From this evaluation and testing, I found that:

- Artworks made using this project’s creative rationale *can*, and are *likely to*, elicit generalised critical reflection on listening;
- Artworks made using this project’s creative rationale *can*, and are *likely to*, structure the experience of listening as a critique of itself, through elicitation of conflicting contents and forms of listening;
- Artworks made using this project’s creative rationale *can* elicit an interpretation of their meaning or purpose that matches the artist’s, but the likelihood of a match is contingent on the specific intent and circumstances of a given artwork. However, artworks made using this project’s creative rationale *can*, and are *likely to*, elicit reflection matching broader themes held by the artist.
From these findings, I concluded that the rationale I had devised for producing sonic artworks justifiable as critiques of listening was, overall, successful, and that I had been successful in finding a solution to this project’s particular creative problem. I also concluded that future work along these lines would benefit from altered emphasis in its testing: reducing the focus on communicating a specific meaning or purpose, in favour of elicitation of themes of reflection, and testing the intensity and meaningfulness of the experience of the work as an indicator of its value to an audience.

The implication of the former conclusion is that there is now a working method for producing sonic artworks that engage critically with the act of listening, and that this method will be generalizable to the practices of other artists and artists-researchers that wish to produce art along these lines. The latter conclusion has implications for future art-as-research; there are opportunities for further work that refines and extends on the methodology used in this project, testing the works of this project in different ways, testing new artworks with similar intent to those of this project, or adapting the methodology to testing the success of artworks with other kinds of intent.

**Unexpected findings, meaning, meaningfulness**

The data collection and evaluation phases of this project yielded several unexpected findings, one of which – the observation that participants appeared to be trying to anticipate my comments when discussing their experiences – caused me to redesign the data collection process midstream. As well, I found that applying Corradi Fiumara’s version of dialectic listening in the interviews – which I aspired to – was more difficult than expected, and that I had to suppress the urge to contradict or engage in argument on the participants’ comments. Further, I found that conducting interviews with the assistance of a recording device tempted me into moments of applying Adorno’s atomistic listening, as I knew the technology would allow me to delay and control my experience of listening to the participants. These findings have implications for future interview based research on listening; the quality of interviewer listening could be given greater weight alongside that of interviewees, or could be a subject of research in its own right.
To me though, the most unexpected findings were from the data evaluation: that the participants’ experiences of finding an artwork meaningful had little to do with the communication of a meaning or purpose, and that although specific meaning was difficult to communicate, reflection on themes of meaning could be elicited with relative ease. Looking back to my definition of the primary knowledge of value to this project, and listeners’ abductive knowledge of their experiences of the artworks, this should not have come as quite such a surprise; listeners’ inferences of meaning from artworks are by nature plural and contingent on each individual’s experience and prior knowledge.

The question of whether an artwork could communicate a specific meaning or purpose could be better viewed as a question of whether an artwork can constrain a range of inferences around a meaning or theme/s of meaning – this is the conclusion I reached in suggesting future research focus on testing elicitation of reflection on given themes. The question of how meaningful an artwork is would then revolve around determining the richness of an artwork as a stimulus for the inference of meaning, in relation to that range of themes. These could also form the basis for future research.

End

Sound depends on listening. As this project has successfully explored, listening is a complex, multifaceted phenomenon, and may ultimately be indefinable in any total sense. The artworks of this project have endeavoured to take as their subject some of listening’s facets: that it is a performance; that it can occur without sound; that it affects how space is experienced; and that it relies on and has as much to do with memory and imagination as sensation. As the participants’ descriptions of their experiences of the works have shown, the interpretation of these works elicits discussion on these aspects of listening, and on many others. The further exploration of listening as an object of art production and research, and the further exploration of artworks’ ability to evoke meaning regarding listening, and other subjects, presents a wealth of opportunity to future artists and researchers.

In this project, I have endeavoured to divert the customary relationship of listening to sound as its object, and to show that this relationship can be circular. I have shown that the object of listening can be directed at listening, and direct listening’s own critical
properties at itself, uncovering and exploring its constituent variations and nuances with the listener. Beyond this achievement, for me this project has allowed me the opportunity to dig into, and bring to the centre of my practice, this belief: that the most important thing for any sonic artwork is to be interesting to listen to, because it only exists for listeners.
Listening Art
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Appendix 1: Plain language statement

Plain Language Statement for
Audience Members
Listening Music: work-in-progress showings

Researcher details:
Name: Dr Roger Alsop, School of Performing Arts – Responsible Researcher
Email: ralsop@unimelb.edu.au University phone number: +61 3 9035 9387
Name: Mr Camille Robinson, School of Performing Arts – Student Researcher
Email: robc@student.unimelb.edu.au

Project details:
This research project is part of a PhD research project at the School of Performing Arts.
You are invited to participate in this project, which is being conducted by Dr Roger Alsop and Mr Camille Robinson of the Faculty of the VCA & MCM at The University of Melbourne. This project has been approved by the Human Research Ethics Committee.

The aim of this study is to enhance our understanding of listening and to test the hypothesis that sound works can critique (be-and-cause commentary on) listening, by gathering descriptions of the experiences of listeners upon engaging with in-progress sound works. Participants’ responses will later be analyzed in order to evaluate the efficacy of the creative strategies employed and to guide the further development of the works.

What will I be asked to do?
Should you agree to participate, you would be asked to contribute in the following ways:

• First, we will ask you to view a performance / listen to a sound work.
• Second, we will ask you to participate in an interview that will take approximately one hour.
• Third, you will be contacted via email following the interview to comment on our analysis of your interview responses, and whether you agree with our interpretation of what you have said.

With your permission, the interview would be recorded with a digital audio recorder so that we can ensure that we make an accurate record of what you say. When the recording has been transcribed, you would be provided with a copy of the transcript, so that you can verify that the information is correct and/or request deletions.

If you are a student / employee / family member of any researcher, please be assured that your involvement in this project will not affect any ongoing assessment / grades / management and it is your choice to participate or not participate in the project.

Your involvement in the project is completely voluntary and you are free to withdraw your contributions at any time.

How long is my contribution expected to take?
We estimate that the time commitment required of you would be approximately half an hour for the performance, then one hour for the interview, and 15 minutes for the follow-up email. The total time commitment is approximately one and three-quarter hours.

HREC: 090001 ETHICS APPLICATION ID: 1340558.1 DATE: 15/8/13 PLS VERSION: 1

* Note: these documents use the project’s provisional title: Listening music
How will any potential risks be minimised?
The risks involved in this project are envisaged to be minimal, as you will not be asked to do anything other than what you would normally do when viewing a performance.

Will I be able to be identified as a participant in this project?
You have been selected to participate in this project due to your particular expertise as a listener. We would like to seek your permission to use your name in the final works arising from this project. If for any reason you choose not to be named, we would refer to you by a pseudonym, and remove any contextual details that might reveal your identity. We would protect your anonymity to the fullest possible extent within the limits of the law and any records of your contribution will be kept on the Student Researcher’s password protected computer. You should note, however, that since the number of potential participants is small, it might still be possible for someone to identify you.

What about confidentiality?
Access to computer files will be available by named researchers only to protect the confidentiality of data that you provide. There are legal limits to data confidentiality. It is possible for data to be subject to subpoena, freedom of information request or mandated reporting by some professions.

What happens to my contributions after the project has finished?
Materials collected during this study will be retained indefinitely by the Student Researcher as they are of artistic value.

What if I have concerns?
If you have any questions or concerns, or would like further information about the research project, please contact the researchers. Contact details are listed at the start of this Plain Language Statement. If you are concerned about the conduct of the project, please contact the Executive Officer, Human Research Ethics, The University of Melbourne, ph: 8344 2073.

What happens next?
Thank you for considering this invitation to participate in our research project. If you do decide to participate, one of the researchers will provide you with a consent form. Please indicate that you have read and understood this information by signing the accompanying consent form and returning it to one of the researchers. Whether or not you decide to participate, this Plain Language Statement is yours to keep.
Appendix 2: Participant consent form

Consent Form for Audience Members
Listening Music: work-in-progress showings

Researcher’s names:
Dr Roger Alsop, School of Performing Arts – Responsible Researcher
Mr Camille Robinson, School of Performing Arts – Student Researcher

1. I consent to participate in this project, the details of which have been explained to me, and I have been provided with a written plain language statement to keep;

2. I understand that after I sign and return this consent form it will be retained by the student researcher;

3. I understand that my participation in this research project will involve:
   a. Being interviewed about my experience of listening to a sound work

4. I agree that the researchers may use my contributions as described in the plain language statement.

I acknowledge that I have been informed that:

5. This project is for the purposes of research;

6. The possible effects of participating in the research project have been explained to my satisfaction;

7. I am free to withdraw any of my contributions to the project at any time;

8. The confidentiality of any personal information I provide will be safeguarded subject to any legal requirements;

Please tick:

I understand that my contributions to this project will appear in the Student Researcher’s dissertation □ yes □ no

In any work arising from this research project such as the Student Researcher’s dissertation, I would like to:

Be identified with my name □ yes □ no
Be referred to by a pseudonym □ yes □ no

I understand that as the sample size is small, anonymity cannot be guaranteed □ yes □ no

I wish to receive a copy of the Student Researcher’s dissertation □ yes □ no

I consent to my contribution to the project being audio-taped / video-taped □ yes □ no

I consent to the outcomes of this research being published in other forms such as articles or websites □ yes □ no

I wish to be invited to any public performance or exhibition of work emerging from this project □ yes □ no

Name of participant: __________________________________________
Participant signature: _________________________________________
Date: ______________________

HREC: 090001 ETHICS APPLICATION ID: 1340558.1 DATE: 15/8/13