SoundEffects
An Interdisciplinary Journal of Sound and Sound Experience

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override

An experiment in interrupting the congruity of audio-visual relationships

www.soundeffects.dk

SoundEffects | vol. 8 | no. 1 | 2019 issn 1904-500X

Abstract

override *is a series of two experimental works for mobile phone investigating creative ways in which the experience of audio-visual relationships may be interrupted to facilitate a more considered encounter with the senses. The aim of this project was to gain a more visceral understanding of how sound might function in combination with vision, and how sensing and sense-making might relate to each other. In other words, I was exploring an embodied understanding of Chion's (1994) notion of synchresis. Somewhat led by Niall Moody's (2009) thesis that the motion inherent in sight and sound acts as a connecting device between them, I set out to create an environment in which the congruity between the senses would be interrupted.*

override *developed into two audio-visual works to be experienced on a double-decker bus with the help of a mobile phone and noise-cancelling headphones. Both pieces aim to create discrepancy between seeing and hearing with the help of the movement felt whilst riding on a bus. In both cases the visual aspect of the film shows a journey made on a similar bus, whilst the sonic aspects and their relationship to the visual and kinetic information differ.*

This article will begin by providing a project outline of override*, as an experience of making at the intersections of hearing, seeing and kinetic sensations. It then discusses several topics relevant to its making: the relationships between synchresis and motion, virtual and real experiences, the role of listening in the development of the project and the journey from sensing to sense-making, explored from the perspective of creating* override*. One key point that emerged from this project was the realisation that conceptualisations – including preconceptions – readily insert themselves into sensorial experiences. Attempting to interrupt sensorial congruity therefore offers itself as an opportunity to question the many assumptions that are part of the sense-making process underlying our creative process.*

Introduction

override[1] is a series of two experimental works for mobile phone investigating creative ways in which the experience of audio-visual relationships may be interrupted to facilitate a more considered encounter with the senses. The project was developed as part of a practice-based PhD project which investigated process in sound arts practice (Garrelfs, 2015), and also as an interplay between the experiential aspects of making and their conceptualisations.[2] Underlying the development of *override* were two key questions: 1) What might this 'experience' mean in a more visceral sense (rather than conceptualisations about it), and, leading on from there, 2) how might the senses of seeing and hearing specifically relate to each other? It was based on an assumption that by working with an Internet-connected smartphone – a new technology as far as my practice was concerned – I might be able to

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observe this relationship more clearly than had I worked with a more established combination of sound and vision.

From these starting points a series of, at times, seemingly unrelated points emerged, which ultimately linked back to getting to grips with an understanding of the relationship between sensing and sense-making within the creative process. In retrospect, several overlapping spheres of sensing and sense-making occurred. The two key areas relate to interactions between experience and conceptualisations, 'real' and virtual experiences. They also included trying to imagine how an audience might make sense of this relationship, perhaps as an audio-visual equivalent of what Don Ihde calls the *imaginative mode* (Ihde, 2007). A further sphere appeared as a temporally displaced one, in as much as before, during and after the completion of *override* I came across various studies from different disciplines that 'clicked' into place through the lens of this project. When I refer to them in this article, they are not intended as a tightly knit theoretical framework, but form part of a wider sense-making process. At times, they stimulated subsequent recognition and understanding of ideas and their relationships that were based on the experiences I had creating *override*.

In a sense, this article presents part of a retrospective reflection and temporally elongated sense-making process that seeks to underscore the value of 'a subjective understanding of knowledge' (Vincs, 2007, p. 99), by which the making of an audio-visual work created a space in which various theories connected and made sense.

Additionally, from a position of hindsight and in combination with the current state of the world, the project hints at potential political implications, which I will come back to at the end of this article.

In terms of terminology, this article uses the terms *sensorial experience* to highlight the visceral aspect of sensing and to avoid confusion with experience in relation to skill building. Where the term *perception* is used, it refers to sensing and creating meaning from sensorial inputs.

This article will begin by providing a project outline of *override* and then move on to discuss several key topics relevant to its making, which are the relationships between (1) synchresis and motion, (2) sensing and sense-making, (3) virtual and real experiences and lastly (4) the role that listening as a practice played in the making of *override*.

Project outline

As mentioned, *override* is a series of two audio-visual works to be experienced on a double-decker bus with the help of a mobile phone and noise-cancelling headphones. With both pieces the aim was to create discrepancy between seeing and hearing with the help of the movement felt whilst riding on a bus. An assumption

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underlying this idea was that by trying to interrupt the experiential congruity of audio-visual relationships I might gain a clearer and perhaps more visceral understanding of what it means to hear and see – from a maker's perspective.

As an 'output', the project involves a participant or member of the audience[3] setting off on a journey on a London double-decker bus. She or he is then asked to watch and listen to one or both (previously downloaded) versions of *override* on their mobile phone. In both cases the visual aspect of the download shows a journey made on a similar bus, whilst the sound is that of separately recorded motorway traffic. The aim here was to create an experience of visual movement in one direction, whilst sound encapsulated movement in another direction, all embedded within the actual movements of the bus (Figure 1).

Figure 1: A photograph showing a mobile phone screen displaying ´override 1´ on a bus journey (Photo: author)

The visual plane itself is disturbed when the participant sees a related view through the actual bus window. Essentially, a third – the kinetic sense was used as a disconnector between seeing and hearing. Both pieces were made available for download via YouTube, accompanied by a set of instructions.[4] The reasons for looking towards movement – on-screen and kinetic – will be discussed further below.

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The two pieces of the series use slightly different approaches, both for reasons of creative variety and increased opportunities for experimentation. In *override 1* the visual movement of the mobile phone piece goes forwards (Figure 2), whilst the sonic movement moves sideways.

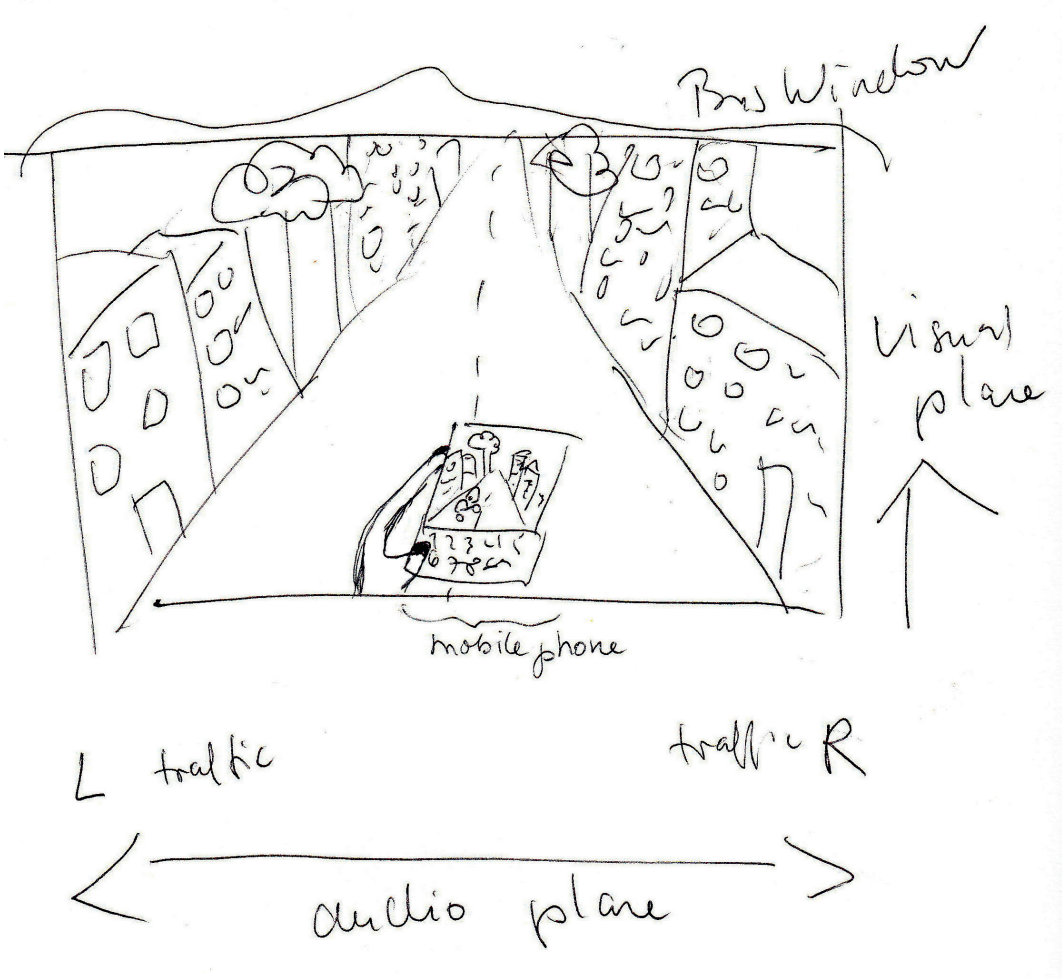

Figure 2: this sketch for 'override 1' depicts what might be seen through the bus window and on the mobile phone screen, whilst indicating directions of visual, aural and kinetic movement

In *override 2* visual movement operates sideways, whereas sonic movement flows from back to front (Figure 3). This virtual directional information intermeshes with the actual movements experienced on the bus. The visual plane is itself disturbed when the participant perceives an almost identical, if partial, view through the actual bus window. Further interruptions were intended to come from the audio plane. I therefore focussed on creating sound with the intention of making the visual and audio planes provide information of divergent directionality.

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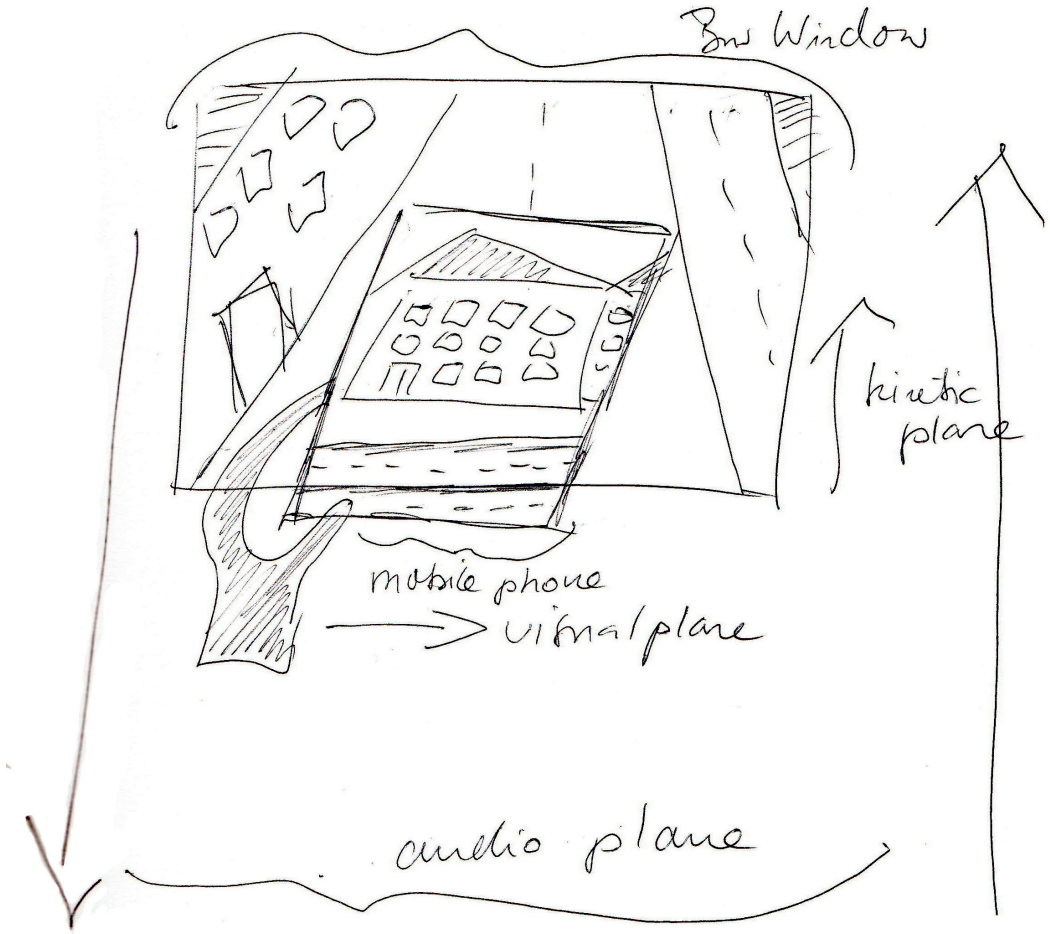

Figure 3: this sketch for 'override 2' depicts what might be seen through the bus window and on the mobile phone screen, whilst indicating directions of visual, aural and kinetic movement

Project development

The project emerged from entertaining myself on long bus rides, shooting clips with a small digital photo camera on London's double-decker busses. As the device chronicled the vehicle's movements it also recorded how my body responded to this motion, encoding a physical experience within a visual record. I usually reviewed these clips whilst still on the bus and found the experience of past movements combined with the overlapping real-time occurrences fascinating. This double exposure of similar, yet different experiences was startling, creating a sense of disconnection and providing one key stimulus for the project. Moving forwards I chose to work with an Internet-connected smartphone for several reasons. To begin with, mobility was an issue; although smartphones at that time were not as widespread as they

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are today, I wanted people to explore *override* on their own devices whilst riding a double-decker bus to achieve an overlay of 'real' and 'virtual' experience. Furthermore, mobile phones also provide limitations in audio-visual experience both in terms of size and quality, the use of which I will come back to below.

So far, the process had primarily explored visual experience, where the on-screen visual plane is disturbed when the participant sees an almost identical, if partial, view through the actual bus window. Further interruptions were intended to come from the audio plane. I therefore proceeded to record sound with the intention of making the visual and audio planes provide information of divergent directionality. However, it proved rather difficult to achieve a strong sense of experiencing sonic directionality in conjunction with the visual material that I had recorded. The first experiments with sound were recorded in city traffic, later also motorway traffic to capture a more continuous stream of traffic. I settled for a binaural recording from a layby on the A30, which provided the strongest sense of direction. However, the overall effect was still milder than I would have liked. I therefore added a provision of noise-cancelling headphones to the instructions to cut out as much 'real' background noise as possible in an attempt to disrupt synchresis.

Synchresis and motion

In *override* I was attempting to disconnect the senses of hearing and seeing from each other to whatever degree this might be possible. The aim here was not to achieve this disconnection per se, but rather the engagement with hearing and seeing this disconnection might afford me. In doing so, I became more aware of a field of considerations relating to the connection between the senses.

Many schemes conceptualising sight and sound in a variety of screen-based genres exist, for example Sergei Eisenstein's views on montage relating to early cinema (Eisenstein, 2010) and Jaroslaw Kapuscinski's initial theory of intermedia (Kapuscinski, 2001). In his seminal work *Audio-Vision: Sound on Screen*, Michel Chion (1994) extracts – from his own creative work and the analysis of work by prominent 20th-century filmmakers – the understanding that the senses interact with one another and influence each other. In his view, 'one perception influences the other and transforms it. We never see the same thing when we also hear; we don't hear the same thing when we see as well' (Chion, 1994, p. XXVI). Chion's notion of synchresis (derived from the terms synchronism and synthesis) describes 'the spontaneous and irresistible weld produced between a particular auditory phenomenon and visual phenomenon when they occur at the same time' (Chion, 1994, p. 63). However, the meaning of *at the same time* is experienced somewhat loosely as Chion himself realised, which is also vividly illustrated by what is known as the McGurk Effect (Tiippana, 2014). The McGurk Effect is a perceptual multisensory illusion

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that demonstrates the interaction between hearing and vision in the perception of consonants, a very important factor that allows film dubbing to work. At times, lip movement and the sound supposedly emanating from the lips do not always come together perfectly. However, the mind 'snaps' these two together into one coherent event. Chion concluded that in 'this situation the sound becomes "spatially magnetized" by the image – that is the sound becomes attracted to the image' (Chion, 1994, p. 70). Essentially, the mind brings these elements together into one coherent experience, and it is this 'construct' I was intending to disrupt with *override*.

Of course, there are well-documented ways in which this bringing together of sensorial impulses, which in everyday life presents us with a coherent audio-visual experience, can be tricked. Examples are optical illusions such as the *Penrose stairs*, a set of ever-ascending or descending stairs, or its auditory equivalent, the *Shepard tone*, which is experienced as an ascending or descending scale of notes. More relevant to the development of *override* was the phenomenon of travel or motion sickness, where perceived movement diverges from the experienced movement. For example, during a car journey the visual system creates the impression of a stable environment within the car interior, whilst the kinetic system responds to the car's movement, signalling an environment in flux. This divergent information as it relates to movements is made possible through the use of technology (here the car) which cannot be reconciled within human experience and as a result can result in nausea.[5]

Niall Moody considered some ideas relating to motion in the development of an instrument for audio-visual interaction, *Ashitaka*. He came to the conclusion that synchresis, in fact, relies on motion:

> ... the motion we see (e.g. a fist colliding with someone) is related in some way to the motion we hear (a sound with a sharp attack, synchronised with the point of collision), that convinces our brains to perceive them as a single, fused audiovisual event. (Moody, n/d)

The motion inherent in sight and sound acts as what can be described as a 'connecting device' between the senses. In this, it also relies on certain expectations regarding how sight and sound relate to each other in pre-schizophonic experience (I will return to the topic of expectations below). With regard to *override*, as an audio-visual project, I was essentially beginning to explore an embodied understanding of Chion's notion of synchresis (1994) from a maker's perspective. Ideas of audio-visual motion as a connecting device are used in reverse, as a disconnecting device: Visual and sonic movements are made to diverge. An additional layer is added to the on-screen movement, that of actual physical movement, which is used in an attempt to derail the fusion between the audio and visual elements that takes place inside the

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mind. Here, the eyes take you in one direction, so to speak, the ear in another, and the kinetic system in a third.

As I was attempting to derail congruency in audio-visual experience, I was also disrupting how we identify, categorise and conceptualise our experiences in the sense-making process. Ultimately, both 'real' and virtual experiences unite to be experienced by one person, and in trying to make sense of this experience, a space of disorientation emerged that made the poles by which we conceptually orientate ourselves just a little bit more noticeable.

Sensing and sense-making

When considering audio-visual relationships within sensorial systems, vision is often regarded as the dominant sense, evidenced by Chion's view on spatial magnetisation (1994, p. 70).[6] Max Eastley, creator of many kinetic sculptures, presents an intriguingly different perspective:

> I heard of someone, a filmmaker, who came to give a workshop and said, 'Everybody says that vision is dominant. Okay, right, so vision is dominant. Where is the channel where people just watch pictures? And where are the channels that they listen to? That's called radio.' (Eastley in: Garrelfs, 2015, p. 114)

The first question here is a hypothetical one (answer: no), but of course, one could argue that this visual channel is photography, activated and made temporal through movement of the eye along such still images (Brown, 2006). In any case, the point that emerges here is that visual perception is not static, and that some kind of connection based on movement also bridges the perception of space and time; it is relational. For Eastley, the relationship between sight and sound is not an altogether linear one. For him, vision changes across the eye and in peripheral vision comes close to the ear – quite literally:

> ... the interesting thing about the human eye is that the peripheral vision is much better at picking up movement than the vision of the front, 'cause actually the human eye is incredibly inefficient. It takes a huge amount of brain power because the image comes into the brain upside down and has to be put right way up. So I was very interested in movement, how do you perceive movement, and this is the periphery of vision. I think it's something to do with surviving out in nature that you notice a movement. But I thought peripheral vision seems to be, you know it's a crazy idea, but it seems to be close to the ear. (Eastley in: Garrelfs, 2015, p. 114)

This perception of movement via our peripheral vision is used in *override*: The centre of the eye is focussed on the mobile phone screen, while its periphery is picking up movement-related clues through the bus window, one of the reasons why in retrospect using a phone with a small screen was an effective choice. However,

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the overall experiential disruptive effect remained minor, and it became apparent that 'magnetisation' is rather a strong bond. Sense impulses are assembled by the mind into one, usually coherent, event experience, and ordinarily we may not even be aware of how what we see influences how we hear or vice versa. The current consensus about how this unified event experience occurs seems to be that our sensorial impulses are assembled in the brain across various locations and associated levels. This process is prone to interference, influence and errors. In this light, sensorial perception seems a somewhat idiosyncratic experience, rather than an absolute and passive mirroring of the world. Tim Ingold summarises: 'In ordinary perceptual practice these registers cooperate so closely, and with such overlap of function, that their respective contributions are impossible to tease apart' (Ingold, 2007, p. 10). In other words, and with respect to *override*, the function of seeing cannot be separated neatly from that of hearing, as was suggested by earlier models of sensorial interaction (see Fodor, 1983), nor indeed from other senses, although the weighting of such a collaboration may well be fluid.

Recently, high-resolution fMRI scans have led to the realisation that '[i]n the cortex, sensory areas may interact through several possible pathways, which are not mutually exclusive. For example, auditory stimulation can elicit specific activation patterns in human early visual Cortex' (Lawrence et al., 2017, p. 4). Returning to Moody, he interprets the integration of sight and sound as follows: 'It is the fact that the motion of the two domains match up in this way that tricks our brain into perceiving the combined audio and visual streams as a single event, rather than two separate sensory streams' (Moody, 2009, p. 66). Or, as in the case of *override*, sight and sound are not joined, but actively disconnected via movements across both sensorial modes and that of kinetic experience. In this light, it begins to make sense that movement should literally shake up connections established in the brain. And that movement across the senses can also contribute to disentangling how we go on to conceptualise our sensorial experiences.

Virtual versus real experiences

When I first started working on *override* I was concerned with the experiential aspects of making, specifically as they relate to process in sound arts practice. One point that requires further discussion is how sensorial experience might relate to technology.

In *Performing Mixed Reality*, Steve Benford and Gabriella Giannachi analysed works arising from the interplay between the virtual and the real (2011, p. 60). Using a mobile phone (if only as a 'screening' device) in conjunction with 'real-world' activities, there appeared to be a relationship with *override*. The authors argue that the usual categorisations designating virtual or even mixed realities are not complex

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enough for what goes on in such practices and argue for a hybrid reality, in the sense that 'reality' is extended (Benford & Giannachi, 2011, p. 69). From the perspective of *override*, regardless of how jarring and confusing, the experience a person has is ultimately a joint, if not unified, one, as both virtual and real experiences are perceived by a single human being.

Brian Massumi (2002, p. 133) sets up the virtual against the analogue, in a technological sense. He explains the virtual as the imagined, and only the analogue as the experienced. However, if we understand the virtual and the analogue simply as opposing ends of one single spectrum, rather than as distinct categories, they become available for existing next to each other, rather than in mutual exclusion, as the interlinking of sensorial experience and the imagination. Here I was reminded of Don Ihde's (2007) reflections on the complexity inherent in the relationship between perception and the imagination (in relation to Husserl and Merleau-Ponty). Exploring auditory imagination specifically he asks: 'What is it that I "hear" when my listening is to the "second voice," the imaginative voice?' (Ihde, 2007, p. 118). How does this constant 'inner speech' (Ihde, 2007, p. 118) influence what we perceive? Perhaps in states of sensory confusion this inner voice becomes less dominant, and it is in this reduction that the interplay between the 'actual' experience and conceptualisations of it becomes more noticeable. Exploring the functionality of hearing devices, Don Ihde also argues that for now at least technological devices are less capable than bodily functions: 'Acoustic technologies are both more complex than the relatively simpler optical ones, but are still at a relatively early stage of development. But, I would contend, this is not because vision is in any way a "superior" sense, or a simpler one' (Ihde, 2007, p. 248). This is an intriguing observation when connected to the audio-visual relationship, on the one hand, and the real-virtual relationship, on the other.

From a more practical perspective, looking at the process of creating *override*, there were certainly levels of abstraction at play, and also levels of experience with regard to the immediacy of making. Creating the mobile phone piece in the studio and not inside a bus with its continuous, unpredictable movements proved an obstacle; very little experiential feedback in between cycles of making the work was possible. As a different perspective on the connection between sensorial experience and the imagination I had to role-play these relationships in my mind – quite differently from what I had set out to do and also quite impossible to mentally simulate properly. As a maker I was moving further away from the immediacy of the envisaged experience, and I very much relied on my imagination to direct the project. Furthermore, as work continued, my senses became attuned to the material, further reducing its impact as an experience. In the process of creating *override* I became very aware of how the actual experience of making influenced the development of this process, with reverberations continuing into other work taking place

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at the same time and indeed into subsequent pieces. I also became aware of how, although the senses worked together, one important aspect of this process from a personal perspective continued to be listening, both as a sensorial experience and an attitude based in receptivity.

From the perspective of what he termed *sonic virtuality*, Mark Grimshaw pointed out that 'the phenomenon of sound is context-specific where that context includes the perceiver's brain and the wider environment' (Grimshaw, 2015, p. 82). In the case of *override* a conflation of two related contexts takes place, a 'real' and a virtual one. There is an actual experience of movement, sound and vision on the actual double-decker bus meeting a very similar experience mediated through the phone. And it is this conflation that the perceiver tries to make sense of, and where concepts have a role to play. As a point in case, the ways in which sound studies conceptualises listening also informed my own thinking about sensorial interaction more generally.

The role of listening

From what I have discussed so far, it is perhaps not surprising that phenomenology, especially in its relationship to listening (see Voegelin, 2010), was and still is a significant cornerstone in my practice and its process. Merleau-Ponty's focus on remaining open to the world (2002) is embedded into many discussions on listening as a practice that has the ability to disrupt (Westerkamp, 2015), and from this starting point it is reframed as action (see Farinati & Firth, 2018; Labelle, 2018). Along the way, many schemes of listening have been devised. Perhaps most useful for the purposes of this project is the triangulation set out by Chion as his three modes of listening (Chion, 1994).[7] Through working on *override* these three modes emerged as points of an interacting spectrum. On one end of this spectrum, reduced listening is positioned as sensorial experience,[8] on the other end semantic listening appears in an extended understanding, as sense-making of sounds more generally, rather than language specifically. Within this interaction of sensorial experience and conceptualisation, memories of past experiences can also insert themselves. Essentially, *override* gave me a real feel for the *polyphony of the senses* (Bachelard, 1958) as a spectrum between sensing and sense-making.

Returning to listening, in her discussion of compositions based on field recordings by artists such as Annea Lockwood, Michelle Nagai[9] describes 'the experience of listening as an essential aspect in the creative impetus and development of these works, and assert the primacy of listening processes in shaping technical and procedural outcomes' (Nagai, 2011, p. 212). *override* as an audio-visual work also relies on continued exposure to the pieces in order to develop them. This includes exposure to a physical activity which is not actually accessible by the inherent method of production, hence the need to fill in actual experiences with imagined ones; senso-

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rial experience was replaced by thinking about potential experience, augmented by memories of past experiences. This then also included playing with expectations: my own expectations of how the audio-visual relationship would function in this context, but also trying to anticipate expectations that a potential audience might have, and how these layers of expectations relating to audio-visual interactions might be disrupted.[10]

The role of expectations

The role that expectations might have for humans can be seen in evolutionary terms as conferring biological advantages, anticipating events and behaviours based on previous experiences, thus shifting the process into the realm of culture (Huron, 2006, p. 3). Although perhaps a somewhat simplistic statement on its own, it nevertheless provides a useful starting point for thinking about the relationship between expectations in relation to *override*, especially in the light of an interdisciplinary study by Huang et al. (2011): Respondents believing they were viewing authentic paintings by artists such as Rembrandt experienced more pleasure than respondents believing they were looking at a copy, regardless of the truth of the matter. MRI scans revealed that data passed from the visual cortex into the brain area dealing with 'rewards' only in cases where the person believed she was looking at an original. In a BBC News interview Kemp summarised how this 'shows the extent to which expectation shapes what we experience in art' (Kemp in: Coughlan, 2011, para. 19). Expectations are also shaped by our previous experiences and, hence, by our memories. At times real experience and remembered experience might even overlap or be triggered by memories. For instance, in automatically responding to certain harmonies with specific feelings such as happiness or sadness, memories have a role to play (Hui, 2013, p. 20). This is well exploited in Hollywood film music. Returning briefly to synchresis and screen-based sound in relation to image, according to Chion the effect becomes neigh on unstoppable when we expect a specific sound to occur in connection with a given activity, for example hearing footsteps when seeing someone walking (Chion, 1994). This is perhaps what made disrupting audio-visual congruity difficult in *override*.

Although it is inherently problematic how especially art in the 20th century tried to disrupt the comfortable lives of the 'bourgeoisie' – in the sense that there is a case of the-artist-knows-better-than-the-ordinary-person embedded in here, which has given way to more communal ways of thinking, for example Bourriaud's relational aesthetics (Bourriaud, 2002) – the current socio-political climate we now find ourselves in means that challenging expectations and assumptions within and around us is becoming more important. In *The Sonic Color Line: Race and the Cultural Practices of Listening*, Jennifer Lynn Stoever (2017) does this by providing a compelling

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argument about how views on race insert themselves into listening practices and thereby perpetuate racial divisions. From a feminist perspective, the same applies to how women's voices are heard (Karpf, 2007). At the same time, we need to be very careful not to fall prey to the expectation that listening is the same for every person, that there is such a thing as the *auraltypical* (Drever, 2017) or indeed any kind of sensorial uniformity across human populations. Cinema, of course, has a long-standing relationship with political concerns, but it seems that audio-visual relationships – or the disruption thereof – could be harnessed more directly to affect a disruption of ingrained understandings and behaviours. In retrospect this offers an intriguing political dimension.

Returning to the more insular perspective of *override*, two overlapping listening perspectives intersect when we, as the maker, try to listen to the work in progress through the ears of our potential or present audience. I understand this overlap as being akin to Roland Barthes' view that two kinds of music exist, one experienced by the maker and one by the audience (Barthes, 1977, p. 149). Max Eastley incorporates an awareness of this superimposition explicitly as a strategy of performative listening: 'I put myself in the audience and say, "Eastley, you're being really boring, you're just confusing people"' (Eastley in: Garrelfs, 2015, p. 116). Such an assessment derived from listening then becomes an input to the work in progress, influencing its direction. Eastley, therefore, alongside others such as Douglas Kahn (2006), emphasises the importance of listening free from ingrained concepts, as 'habitual ways of listening got in the way a lot of the time' (Eastley in: Garrelfs, 2015, p. 116). This, again, points to an approach to making at least attempts to question our own cultural beliefs, as they open up at the intersection between visceral audio-visual experience and conceptualisations of its relationship.

Conclusion

As a piece of sound art, *override* leaves much to be desired. First, the project might well have been much more effective as an app, rather than what is essentially a mobile phone download, if purely for ease of access – downloading materials from YouTube, remembering the instructions and accessing the materials offline are far less straightforward than via a dedicated app. Also, the method of its creation is far from flawless, although integral to the context of its making – after all I was exploring process through these activities, not focussing on creating an outcome per se. Shortcomings aside, it allowed me to work through the relationships between synchresis and motion, virtual and real experiences, the role that listening as a practice played in the making of *override* and, most importantly, how the relationship between sensing and sense-making might be encapsulated in this project.

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As a result of engaging with the senses of seeing and hearing through an initially audio-visual project I began to explore motion as one connector between sensorial experiences in screen-based works. This journey later led me to formulate some further strategies related to fostering congruity of audio-visual experience in screen-based works as they relate to multi-screen/speaker situations (Garrelfs, 2016b). Also, my performance practice is now much more attuned to physical movement as a connector, perhaps less between screen-based sight and sound, but more as a connector across sensorial systems, between myself and members of the audience.[11]

The key point emerging from this project, however, was the realisation of just how quickly concepts insert themselves into sensorial experiences, meaning that although the initial impetus was to focus on the experience of sensing, in actuality, a great deal of thinking took place on the back of this aim. (In fact, what I would have previously described as reduced listening more frequently amounted to thinking about listening). This in turn affected how I came to understand the relationship between reduced, causal and semantic listening and take liberty with the latter by expanding semantic meaning beyond language into general sense-making, as a spectrum from sensing to sense-making. It seems that perception is very much affected by processes or biases that fall outside the grasp of conscious activities. As such, perception appears as a construction created by our minds, as a 'collaboration' between the sensorial experience, our imagination and our memories (Mlodinow, 2013). It is in awareness of this connection that I recognise a great opportunity, and in which I join many others who point out the potential for disruption provided by a focus on sensorial experience and specifically listening. According to Hildegard Westerkamp, for instance, this is because in listening we contribute awareness, which allows for a 'continual and gentle process of opening' (Westerkamp, 2015 para. 2) to take place. Evidently, as an active process, listening in particular is not a static experience, and becoming more aware of this process at an analytical level is disruptive to habitual patterns. Brandon LaBelle points to a sonic agency that can 'act in relation to contemporary social and political struggles' (LaBelle, 2018, p. 154). At the same time, as Salome Voegelin points out, sound and listening 'can reveal the invested ideologies behind the normative view, and grant us access to alternative possibilities' (Voegelin, n/d, para. 16). However, for me the possibility of reassessing our habitual views is located not so much in one particular sense (although it certainly may provide a route towards it), but in a combination of the following two points: first, the awareness of how much the brain and thereby our cultural and personal conditioning contribute to how we interpret and make sense of our polyphonic experiences, and second, in being prepared to keep questioning the many assumptions that are part of our sense-making and conceptualisation process. I understand this as an open invitation to use such opportunities to

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keep questioning how we function on an individual level and how we act within a community, how we contribute to the construction of our 'reality'.

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Notes

1 The title *override* is perhaps self-explanatory, but for the sake of completeness, here is a short outline. On the one hand, the title hints at the concept of 'overriding', here in the sense of overriding how hearing and seeing function together, rather than one being more dominant than the other. On the other hand, the project includes a ride on a bus; it seems too good a pun to miss.

2 This research led to the development of a theoretical framework for the discussion of process in sound-based practices titled *procedural blending* (Garrelfs, 2016a).

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3 I never quite settled on whether to use the term 'participant' or 'member of the audience', as neither seemed fully accurate.

4 Both *override 1* and *override 2* can be accessed via http://irisgarrelfs.com/override.

5 This aspect of potentially inducing nausea necessitates ethical deliberation, which however is outside the scope of this article.

6 With regard to sensorial dominance, although Pierre Schaeffer (2012) foregrounded the *primacy of the ear*, it was very much in regard to exploring sound objects through listening, rather than through visual entities such as scores. This listening ear extends itself into the imagination, becoming listening imagination or acousmatic imagination via the sounds available to electroacoustic production (Smalley 1996).

7 The three modes of listening are: causal listening (to gather information about a sound's source), semantic listening (listening out for meanings in language or audible code) and reduced listening (as originally devised by Pierre Schaeffer and referring to a focus on the qualities of sound).

8 Often cited as an example of reduced listening in action is Francisco Lopez who in his performances aims to exclude visible inputs altogether by blindfolding audiences to achieve a state of 'blind or profound listening', mirroring Schaeffer's notion of reduced listening (Landy, 2007, p. 247).

9 Nagai is a founding member of the American Society for Acoustic Ecology and has been trained in Pauline Oliveros' deep listening practice.

10 I acknowledge a paradox here: Although I began work on *override* for the expressive purpose of creating a visceral experience of audio-visual relationships, I ended up thinking about them a great deal.

11 For those interested in motile sound-based performances, an example can be seen in my piece *Lauschen*, devised for improvised voice, environment and listening cones. Documentation is available at http://irisgarrelfs.com/lauschen

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