

Reanimating video and sound in research practices

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Abstract

This chapter examines the implications for conceptualising, composing and structuring a postqualitative research project with video and sound. To do so, the authors challenge philosophically, politically and methodologically the mainstream ideas about how video in research works. The chapter starts with a brief detour to explore how the historical entanglement between art and science might inspire ways that postqualitative research could trouble the concept of representation in research, which lies constantly beneath the surface when video and sound technology is integrated into research practices. Demonstrated through a range of examples of research practices embracing moving images and sounds differently, this chapter offers a taste of what postqualitative research with sonic and visual technology could entail. Key questions are discussed, such as what comes into focus when paying attention to the material and the nonhuman through video and sound, and what ontological shift this technology allows or promotes. The role of sound is given special attention as an example of readjusting what is heard (and valued as worth hearing) when analysing research data. The aims of the chapter, with its examples and suggested activities, is to excite and inspire researchers to reanimate and re-imagine research with video and sound.

Keywords: Research methodology; Video; Sound; Film; Nonrepresentational; Postqualitative

Overcoming Video Fear

MacLure, Homes, MacRae and Jones (2010) urge us to overcome what they call “video-fear”, the worry that creative use of video in research might dissolve the impermeable membrane between object/subject and truth/fiction which “persists and has kept video practice in a ‘primitive’ pre-cinematic state” (MacLure et al., 2010, p.546). In their article, *Animating classroom ethnography: overcoming video-fear* (2010), the authors call upon researchers “to see depth, complexity and the layering of history, memory and possibility in images” (p.546). The article raises important questions for researchers to consider about the status of video and

other recordings as ‘data’. They candidly write about their own inability to “see/think anything new, or indeed anything *in particular*, ‘in’ the video recordings” they were making as part of a research project (p.545). Unlike film, literature or art, the kind of media that *animate* and make *affective* demands on the readers of such texts are “drained of affect” and singularity (p.545). Their concern for how children were positioned in their research grew because of the way they were using the technology as researchers. Inspired by Deleuze’s work on cinemas, they describe their collaborative efforts to disrupt the all-so-familiar ways of viewing and listening to children (see, also chapter 3), by producing an experimental short film around the theme of the research project on how and why certain children are labelled as ‘naughty’.¹

Like the others in this book, our chapter is an invitation to move research practices away from following only the human in research. It opens epistemic possibilities for researchers to pay attention to the material world, performativity, embodiment and “the diverse objects, organisms, forces and materialities that populate an emergent world and cross between porous bodies” (Lorimer, 2010, p.238). As we suggest, it is the *relationships* that can be made visible through technology as they allow us to postpone human-centred interpretations of movement. Moving away from following the human only through, and enabled by, technology, opens possibilities for what some claim is a flat(ter) ontology (Rotas, 2019). Inclusion of the nonhuman creates new main ‘characters’ as part of the research data – previously overlooked when transferring observation into written words that represent or stand for the world that is represented. Diffracted through MacLure et al.’s (2010) article and video, we challenge philosophically, politically and methodologically the mainstream ideas of how film in research works, and we open up possibilities of exploring the following key questions:

- How do mainstream video and sound practices position research relationships such as observer/observed, speaker/listener and researcher/researched?
- When paying attention to the material and the nonhuman through video and sound, what and who comes into focus?
- What ontological shift does the technology allow (promote?); why does this ontological shift matter and for whom or what?
- What difference do new video and sound practices make in terms of knowledge and affect (epistemology)?

- What are the implications for conceptualising, composing and structuring a research project (research design) with video and sound?

Over a decade has passed since MacLure et al. (2010) urged researchers to overcome video fear. Using examples from recent postqualitative research, this chapter explores how posthumanism challenges anthropocentrism and human exceptionalism and opens a broader conception of whose knowledges count in research as part of a shift to a relational ontology. Most of the examples are taken from (early childhood) education research. In this field, posthuman research has made great strides in getting established in certain parts of the world (Taylor and Hughes, 2016). However, these examples can also inspire several other research fields that aim to ground their audio and video research in posthuman ontology and epistemology.

Shifting the role of the researcher

Qualitative research challenges the dominant paradigm of objective knowledge based on collecting quantitative data that is claimed to be universal and independent of its context. Both qualitative and quantitative researchers assume that moving images are truthful and accurate representations of empirical phenomena (de Freitas, 2016). However, qualitative researchers admit that the researchers' role in *interpreting* the data is key as they aim to describe and understand events through interpretation. The researcher is not invisible. Qualitative researchers claim that knowledge needs to be understood as situational, intersubjective and therefore cannot be generalised. Postqualitative research moves beyond the mere confession of the researcher as an interpreter creating so-called 'intersubjective' accounts of reality in her efforts to move beyond the human. Like poststructuralists, postqualitative researchers aim to challenge power-producing binaries (objective/subjective), but unlike the former, they reclaim concepts such as 'realism' and 'objectivity'. A human-centred concept of objectivity relies on individual existence and spatial separability, hence assumes the objective/subjective binary. In contrast, posthumanism does more justice to the fine details and complexity of reality that also considers the nonhuman (Barad, 2007, pp.172-175). Rather than regarding video and sound data as scientific evidence that exists separately from the researcher, postqualitative research aspires to do justice to the always already existing human and nonhuman entanglements. This includes how the technology works agentially without necessarily the need for a human actor with both a will and intentionality.

This chapter opens an experimental stance towards the use of technology, both filming/sound recording, as an intricate part of the research process, including data creation and analysis and the communication of research. As the examples illustrate, embracing and experimenting with new recording technologies, collaborative projects with research participants (including the nonhuman) as well as new visual forms of analysis, offer novel options that produce insights that matter politically and ethically. Whilst the communication, as well as recognition of traditional research, still relies heavily on the written word, finding new ways of engaging with possible audiences is a challenge postqualitative researchers embrace. An artistic processual way of incorporating the technology of video and sound in postqualitative research shifts the role of the researcher, disrupts the habitual human-centred gaze (human exceptionalism) and troubles taken-for-granted assumptions about time and space. Postqualitative use of video and sound sets out to explore a research topic in innovative, imaginative and ethical ways through an ontological paradigm shift (see chapter 2).

Returning to an artistic approach and collaboration with/in technology

Postqualitative research unsettles ideas of representation in research and its assumption that research data can be treated as lifeless slices of reality ready for analysis. Before looking at examples of contemporary research, we start with an historical detour to explore the entanglement between art and science in terms of representations of reality. In eighteenth century Britain, an education in the technique of drawing, or at least working in close collaboration with a draughtsman, was essential for working as a botanist. Nickelsen (2006, p.5) points out that these images were often artistic reflections on nature, where a draughtsman produced lifelike but unrealistic illustrations². One would not be able to find a flower in such a condition in nature. Hence, the illustrations were not fixed slices of time and representations of reality, captured for scrutiny, but the reconstructed and artistic reflection on the plant's characteristics. This more flexible visual approach led to illustrations that incorporated different sizes of different plant parts, different phases in their life cycle as well as copying parts of earlier images, albeit mainly for practical reasons. However, the aesthetic quality, with obvious love and fascination for the subject, produced affective imagery and contributed to establishing new human-plants entanglement that mirrored the fascination for nature in eighteenth century Britain. At the same time, this fascination also led to a

compulsion to organise wildlife into categories and hierarchies in the name of science, which ultimately needed more exact and direct representation of reality fixed in time and space to conduct these categorisations. Hence, a stricter separation between art and science was also established in the field of botany (Nickelsen, 2006).

A more recent example of crossing the demarcation lines between art, science and new technologies is the microscopic photographs of insects by Giles Revell³. In his work, the black and white photos, which are shot with an electron microscope, portray tiny insects in clearly contrived and stylised positions. The images are symbolic of aesthetic beauty as they make the bodily structures of these specimens visible in extreme naturalistic detail. They erase the borders between science and art, taxidermy and digital computing, producing affective imagery with a new technology. These images allow study of the insect close up, while inviting aesthetic engagement with a world invisible to the human eye. These images are beyond merely representing insects' appearance, although constructed, they are artistic as well as truthful (Gibel-Gamal and Wulf, 2002).

An historical example positioned between still image and film and with a focus on movement is the work by French photographer Étienne-Jules Marey (1830-1949). His work has been discussed by scholars of new materialism and posthumanism such as Erin Manning (2008) and in the context of early childhood research by Christina McRae (2019). In his attempt to capture characteristics of human and animal movement, Marey worked backwards, using a film-like sequence of images, but incorporating them into one single image. He thereby created scientific imagery with a strong aesthetic and affective quality exploring the relations of space to time as the essence of movement (Rabinbach, 1990). A similar technique was used by contemporary photographer Xavi Bou (2012) who describes his approach as “the balance between art and science, a project of naturalist discovery, and, at the same time, an exercise of visual poetry” (Figure 8.1).⁴

Figure 8.1. *Ornitographie*, Xavi Bou, 2017. With permission from the photographer.

[Insert Figure 8.1 here.]

Revisiting the historical beginning of scientific observation with film shows that this so-called ‘video fear’ was not as prominent in the early days of film technology. The works of self-taught zoologist Percy Smith (1880-1945) move seamlessly between entertainment, aesthetic experience and scientific observation⁵. Creating a sense of wonder and awe amongst the audience seemed as equally important to him as opening up a new world for scientific exploration. However, his contribution to the scientific community has also been questioned by some, because of his manipulation of natural processes. Hence, he was accused of lying by some members of the scientific community, whose standards prescribe that scientific images must objectively represent the world as it is (Rodriquez Mc Robbie, 2017). Contemporary wildlife films, which are less traditional documentaries and rather storytelling features, incorporate tools from the creative film world and new filming techniques. However, these are often placed in the world of edu-entertainment with a clear positioning in a commercial tv and film industry. An exception is the short film *Invasion* (2015) by Anne Milne, which explores, not unlike the work of Percy Smith, the world of pathogens, bacteria, parasites and other creatures⁶. An analogy is drawn between bigger structure and the invisible worlds of the earth when viewers are taking on a trip to fascinating, bewildering and somewhat frightening small worlds through affective imagery, which allows rearranging the viewers’ relationship to space and size and what matters. However, nowadays, the connection and collaboration between (sound) artists, filmmakers and research often seems lost when video and sound is incorporated into the world of science and research.

Unsettling traditional ideas about time and space: ‘spacing’

Gilles Deleuze’s study of post-war cinema led to his concept of the time-image, a filmic expression that unsettles time and space as well as memory and thought (Deleuze 1989). A contemporary, visually stunning example is Lars von Trier’s *Melancholia* (2011). The Danish filmmaker sculpts time and space using slow motion⁷. He portrays the main character’s inner time – distorted by her depression – at a stand-still. Drawing on this possibility of challenging ideas about time and space as unilinear allows the use of video and sound technology in research to be redefined. Similarly, Karen Barad (2018) is critical of scientists’ faith in unilinear time, which includes the belief that researchers can cut time into single moments where only one moment can exist at the same time. This is important for video research, because cutting down time into single moments which only exist one at a time is a

prerequisite for treating video sequences as representations and slices of the real world as it (really) is. Traditional video research often talks about ‘sequences’ and ‘incidents’, usually pointing to bits of video clips selected for analysis. The researcher’s influence on the selection process is commonly acknowledged, but selected clips are still regarded as slices of reality.

The dominant use of video technology tends to regard video data as a reliable form of documenting objectively what takes place in a research site (de Freitas, 2016). Rather than the standard practice of using video to ‘collect’ data as evidence of, for example, prior hypotheses, postqualitative researchers are interested in how video research “is materially implicated in the production of new knowledge and new kinds of knowers, attending to the unique qualities of digital nature of video data for how it mobilizes new social and cultural relations” (de Freitas, 2016, p.554). As a result, more and more detailed recording practices are developed, including setups with several cameras, trying to capture all angles and thereby producing a complex picture of reality ready for coding and themed analysis through a God’s eye point of view, the voice of a researcher from the ‘outside’. Postqualitative research challenges this assumption about objective data in the case of video and sound-based research, and denies the researcher the possibility of hiding behind the camera/microphone.

Postqualitative researchers argue that space has been ignored in empirical research, and propose a reconceptualisation of space as ‘spacing’ – a verb that troubles understanding space “as an inert and pre-existing background or a container of...activities” (Mengis, Nicolini and Gorli, 2016, p.2). *Spacing* does justice to the performativity and material agency of space, and opens fresh possibilities to see spaces as more than just spaces to be filled with bodies (the Newtonian conceptualisation of space as absolute). They point out that an important obstacle for the empirical analysis of data is the fact that “spaces do not announce themselves through verbal language” (Mengis et al., 2016, p.2), hence the popularity of video research as it makes visible “the complex set of bodily presences and absences, movements in the space, material details, colors, sounds, and rhythms” (Mengis et al., 2016, p.4). The possibility of repeatedly playing back the recordings provides material-discursive opportunities to explore “in detail the effects of specific ways of seeing with a camera” (Mengis et al., 2016, p.4). For an example of this, see Theresa Giorza’s *Videography as Refrain: Diffracting with Forward, Backward and Stop in a Preschool Outing* (2019). Giorza shows how the geopolitical location has stories to tell – stories that were made and remade as she re-turned (to) the video

clips again and again of a preschool's outing to a local park in inner-city Johannesburg. The Baradian method of temporal diffraction adopted in this project opens possibilities of regarding the past as not gone and irretrievable but as implicated and threaded through the present and the 'now' in the park.

Video recording is clearly not an objective, neutral methodological tool, epistemologically, ethically or politically (Mengis et al., 2016, p.3). Sylvia Kind (2013) argues that postcolonial research practices are urgently needed to actively disrupt the common assumption that cameras objectively record movements and represent the real world as it is. Combining different video apparatuses, that is, different combinations of camera angle and movement, privilege *particular* spatial understandings, including the materialisation of particular power relations (Mengis et al., 2016, pp.2-3). An 'apparatus' like a video or dictaphone is "a doing, not a thing" and they are boundary-making practices that include and exclude (Barad, 2007, p.183). How combining three camera angles in a classroom could be used, not to catch every detail to create maximised representation of reality, but to disrupt adult/child and other power-producing binaries in research, is exemplified in *Literacies, Literature and Learning: Reading Classrooms Differently* (2018) by Karin Murriss and Joanna Haynes.

Montage-ing

The use of montage sequences, which jump in time and space as well as extreme slow motions or time lapses, unsettles the unilinear conception about time and space that traditional video research is anchored in. It has been argued that, although they might be cut out of a more extended section, they nevertheless should stay 'intact' (Erikson, 2006), thereby avoiding the danger of disrupting a unilinear time-space continuum. Research that claims to use a reflexive approach often acknowledges that the camera framing of an event is including and excluding, and that there is an element of subjectivity (Jewitt, 2012). However, this is often not extended to the section chosen for examination, as the segment is still treated as an uninterrupted representation of a single incident. As a result, the researcher denies what Deleuze (1986) would call the essence of cinema, which is its potential to invite new ways of thinking (see below). Postqualitative research aims to move beyond the contradiction often found in qualitative approaches that claim self-awareness of subjectivity on the one hand, and realise the potential of video technology for new ways of thinking about the world on the

other hand. But this ‘world’, postqualitative researchers argue, already includes the video as apparatus as well as the videographer. In other words, self-awareness of subjectivity already necessitates an ontological shift in such a way that video cannot be regarded as a tool for representing so-called ‘reality’. Paying attention to the difference between *linearity* and *unilaterality* might help to highlight this issue.

The attraction of understanding moving images as a unilinear representation of time is understandable. It is due to the temporality of video as “pictures are watched in a consecutive sequentiality” (Koblauch, 2012, p. 74). This means film (as well as sound) has a built-in linearity which follows the passing time of the moment of recording; a film, as well as a sound bite starts and ends, and viewers have to surrender to this linear development and progression. However, there is also the character of simultaneity (unilaterality), as each picture can transfer information simultaneously; we see the context the person is placed in as well as their face at the same time (Wagner Willi, 2012). The soundtrack adds another layer to this parallel construction. This leads to a fundamental hybrid character of audiovisual material. Nevertheless, this analysis of the technology misses the technology’s outstanding potential, which is ‘the Cut’.

As the Soviet filmmaker Leonid Kuleshov (1899-1970) described, the viewing of two separated images cut together in a film sequence triggers a mental process in the viewer to connect the two single events (known as the Kuleshov effect). One example is the image of a man cut with an image of soup which lead viewers to suggest he is hungry, while the same image cut together with the image of a woman, led the viewers to believe the man must be in love⁸. This allows the filmmaker to establish endless connections which come alive with/in the viewers.

The extraordinary quality of film as technology is taken up by Deleuze (1986, 1989) in his philosophical inquiry of cinema. Deleuze’s theorising has been adopted in many postqualitative research to inspire doing research differently (see, e.g., MacLure et al., 2010; de Freitas, 2016; Olsen and Lindgren, 2019). Based on the potential of the technology described above, Deleuze (1986) ascribes to the technology of film a special quality which he terms as being the essence of cinema. In Colebrook’s (2006) reading of Deleuze, the essence of cinema is the potential and power to produce new forms. This allows the technology to

disturb a unilinear framing of time, despite being based in a sequential temporality and its screening of consecutive events.

When transferred into practice, an interface for video software illustrates this essence of the technology (Figure 8.2).

Figure 8.2. Interface DaVinci editing software. Created by Soern Finn Menning

<https://www.dpreview.com/files/p/articles/3313009578/DaVinci-Resolve-16-Deliver.png>

[Insert Figure 8.2 here]

Several video timelines can be lined up in the editing process, as well as sound timelines. Cutting between allows these new connections to arise, unsettling configurations of time and space while still following a linear development. This can be configured as a practice of what Wohlwend and Thiel (2019) call “cutting-with”, a method for examining the socio-material dimensions of Barad’s agential cut. Cutting-with “looks for agency across components...[it] sees how things are not blankly waiting for human representation but are always/already conveying meanings” (Wohlwend and Thiel, 2019, p.174). Unilinearity of time – the idea that time consists of one single stream of consecutive events, for instance – can be questioned through the endless possibilities of new arrangements of the footage which jolts Newtonian ideas of time and space.

A possible exploration might be to investigate, analyse and communicate our findings of our experiences of a well-known communal space using video and sound. (For example, by asking students to make a video of the canteen.) What happens if we actively move away from our desire to document human interaction? Can we cut the material in new and surprising ways, get involved in ‘spacing’, thereby bring to the fore what was previously forgotten or unheard? Can we create new complex montage sequences that challenge our prior assumptions about spacetime and the causality of events we think we know so well? This unsettling involves a radical questioning of power structures. Sylvia Kind (2013, p.437) argues that photographs can be understood as violence because they isolate moments from the continuum of time. A similar violence can be attributed to video sequences when they are

understood as both copies of reality and isolated elements on a unilinear timeline. This violence is a crucial element in a world order established through the reign of western science. It is closely connected with ideas of power, categorisation and colonisation. However, it is this understanding of time that can be challenged when the technology of video and audio is used to its potential which is “to transform the structure of perception which has dominated the history of thought” (Colebrook, 2006, p.39).

Barad (2017, p.22) points out that the “radical political potential that exists in the thick-now of this moment requires thinking time anew – diffracting the past through the present moment, like the play of light inside a crystal”. Video has the potential to diffract visually, creating a crystal of moving imagery that questions unilinear causation. However, this demands that researchers think more like auteurs, explorational film makers which create “singularities” which contain “powers that potentially yield relations not already given” (Colebrook, 2006, p.58). However, Elizabeth de Freitas (2015) argues that digital decomposition methods go beyond traditional montages based on cutting between the material. Further potential to disrupt and unsettle the habitual gaze arises, which we will discuss later in this chapter.

Beyond formal ethics of consent

When practising postqualitative research with video, research ethics common in the traditional use of video, still applies. This involves issues of consent, privacy, vulnerability of participants. Formal processes involving research subjects and the use of video must be followed. Often the risks involved in approving the use of video and sound technology in research is phrased in terms of authenticity (i.e., concerns about changing the meaning through editing), subjective selection of video footage or images, the impossibility of guaranteeing confidentiality, and anonymity/privacy. The researchers are also obliged to consider ownership of data sources, intellectual property rights, storage and archiving of the video data, ensuring the voices of children are represented without causing harm and the difficulty of removing content from the internet once it has been disseminated (Peters et al., 2020). However, by drawing on a Baradian relational ontology or a Deleuzian reading of Spinoza in postqualitative research, research ethics is reconceptualised and reimagined without discarding any progress made in terms of human rights.

Sean Sturm and Marek Tesar⁹ are both affirmative and critical of research ethics practices that include the use of video, which are both humanist and logocentric. Sturm points out that research participants tend to be humans only, who communicate primarily through speech. What does this “speciesist ethical imaginary preclude?”, he wonders (Peters et al., 2020). Jayne White argues for allowing the publication of visual images of children. One of her reasons is the limited possibilities for young children to use words to express themselves. White’s desire is “to grant children presence, perhaps even ‘participatory voice’, in the world” through video (Peters et al., 2020).¹⁰

In common with other postqualitative researchers, Sean Sturm questions the ‘I’ (or the ‘we’) of digital research. He argues that the nonhuman, the unspoken, the discursive and the material co-create assemblages (Peters et al., 2020). Sturm disrupts the idea that the human sovereign and autonomous researcher takes all the responsibility. Instead, he supports using the notion of ‘response-ability’, as introduced by Donna Haraway (2016) and taken up by Karen Barad (2007). For Barad, ethics is about responsibility for the “lively relationalities of becoming of the world of which we (humans *and* nonhumans) are a part” (Barad, 2007, p.393). Response-ability is relational: it is about the ability of the ‘Other’ to respond¹¹ and as we have seen in this chapter so far, experimentation with technology can be an important part of this boundary-making process of who and what is heard and listened to.

In Colebrook’s (2006, p.48) reading of Deleuze “[c]inema is not one more way of representing content from the human point of view; it is evidence that life gives itself to be thought in different styles”. This means that the technology of video and audio recording, editing and screening in research has become an ethical practice if it leads to life being possibly thought of in alternative ways. Tesar points out the agential role of the technology in research practices: how videos are selected, cut and pasted, how frames are re-framed, recalibrated, and how ethics and aesthetics are interwoven (Peters et al., 2020). Hence, ethical considerations would also have to involve questioning how a particular use of technology sediments subjectivities and particular ways of thinking and knowing. See, for example, how the documentary series *The Secret Life of 4 and 5 year Olds*¹² presupposes a very different role for the researcher than in the examples in this chapter.

These examples provoke important questions for us to toy with. To what extent does a research project limit the possibilities of disturbing habitual ways of seeing? Does a chosen methodology and analysis foreground difference and allow possibilities for change? These ethical questions need to be considered *before* a research project is designed; not *after*, which is usually the case in university research ethics practices. For example, when incorporating video technology into the research process, one must ask how the inclusion of the material (the use of camera and video as an apparatus) *matters* in knowledge production? To include material devices such as cameras and field recorders activates an ontological shift that does more justice to non-human forces at play in research.

Rather than the standard practice of recording video and audio to ‘collect’ data (as if it is there as a given before the human arrives on the scene) and compose evidence, postqualitative researchers are interested in how technological instruments are materially and discursively implicated in the production of new knowledge and new kinds of knowers. This does not only mean “admitting” to the agency of the research technology, but also requires postqualitative researchers to incorporate a redefinition of agency itself (Sørensen, Åarsand and Hoveid, 2019). Individualised (and intentionalised) notions of agency are rejected, as the focus is on a relational agency which is mutually enacted and distributed, an assemblage of acting, reacting (and even non-acting) but with agentic participants (both human and non-human) in the research event. In the next section, we will explore how playing with video (e.g. by slowing it down or mashing) can trouble colonising notions of relationships between researcher/participant but also material entities (co-participants in the research event).

Disrupting our habitual gaze and unsettling sound through doing video differently

Interpretational or hermeneutical approaches to research acknowledge that researchers enter their field of exploration with a certain preunderstanding. These prior assumptions about the research field will then influence the empirical material gathered. Through an interpretational dialogue with the empirical material, these pre-understandings can be adjusted to create a greater understanding of the subject matter. However, postqualitative research is interested in how the research process can actively disrupt these prior assumptions (e.g., human-made binaries such as human/nonhuman, macro/micro, culture/nature) and the habitual gaze that

could colour the research project throughout all its stages. We argue that the technology of film and sound is particularly capable of doing this.

As the technology transfers rays of light and sound into information in pixels and soundwaves, it does differentiate between humans or nonhumans. Video is a machine that allows the “dehumanisation of the image, a scene where the visual can be freed from the local subject and released to yield autonomous power” (Colebrook 2006, p.43). Through cuts, changes in speed and distortion of imagery, video technology has embedded the possibility of disrupting our habitual gaze. For example, Christina MacRae (2019) shows how slow-motion video in her research with two-year olds attends to the virtual potential of movement and thereby decolonises childhood by resisting conscious interpretations. In *Grace Taking Form’: Re-animating Piaget’s Concept of the Sensori-motor through and with Slow-motion Video*, MacRae (2019) deploys Bergson’s notion of ‘grace taking form’ to enliven data.¹³

It is the humanist habitual gaze that draws us into the role of an interpreter, interrogating images and trying to find out what is represented in them. Disrupting our habitual gaze opens up the possibility of seeing new, previously hidden, connections and assumptions about the world. Another good example of a profound unsettling of our habitual gaze as researchers is Lucy Caton’s *Video Data Sensing*¹⁴, through an affective methodology called “video data sensing” and a focusing on the *doing* of the video, rather than what the video *means*. Supported by digital software (see Figure 3), Caton challenges contemporary humanist approaches to child participatory visual research with its subject-based agency.

Figure 8.3. Lucy Caton’s (2019) *Video Data Sensing*. Open access.

[Insert Figure 8.3 around here]

It has long been a tradition in qualitative and participatory research to transfer or share the role of data collector from researcher to participants by, for example, handing over recording devices (e.g. wearable GoPros). This is often suggested as an intervention that gives voice to

research participants and challenges the power structures inherent in research. However, postqualitative approaches aim to move beyond merely transferring voice and (human-centred) power and continue to enquire into other possibilities that keep the question alive and vibrate what and whose knowledge counts. One example is the work of Nikki Rotas, who involves her young human research participants by letting them wear mobile recording devices, so that they produce visuals from their bodies' point of view. In her article *Three Notes on Visual Pedagogies in Childhood Research: Making Images that Move and Endure Time (2019)*¹⁵, Rotas shows how participants are engaged in cutting and redistributing videoed material into new montage sequences in a creative process she calls "mashing". This creative act exploits the virtual potential for the technology to allow new connections and evocative constellations to appear beyond the binary conception of researcher's voice (point of view), versus participants' voice (point of view).

Sound matters

Sound – a critical component to recording video – oscillates across the material ←→ discursive. It relays between materials/doings/actions. When diffracted through video, however, these more-than-representational dimensions are often flattened and silenced. Consider, for example, the so-called noise of an early years learning centre. Affective atmospheres of play are tied to children's bodies as they oscillate in and between the human and more-than-human. Although documenting these experiences through video attunes us towards the ways in which bodies become responsive to and emergent in material encounters, sound is subordinate. Sound is mimetic, appropriating forms for representational interpretation. Despite these limitations and reliance on the visual, sound is more than a representational partner mode. Sound is the conduit between the relational and the aesthetic.

Outside of its auditory capacity, sound is what Hawk (2018) details a "quasi-object". A design resource and "vibrant mattering" (Bennett, 2010), sound agitates and communicates. As a medium shaped into form by composition, installation and performance, sound – on its own and apart from the visual – is political. Sound is an expressive index that symbolically and materially claims power and refigures forms of space through communicative forms of the more-than-human. Its statements, either sustained in silence or exerted through absolute control and human input and output, are curated and produced to be 'heard.' Configured here

as a form of enquiry, sound materialises as an entanglement of subjectivity and objectivity and the noncoincidence of emission and reception.

If postqualitative approaches to video allow us to disrupt our gaze, then we must also reframe our understanding of listening. As an apparatus linked to human consciousness and aurality, listening is understood – often implicitly – in anthropocentric terms. From this perspective, sound is representational in form and sociocultural in design. It is a modal signifier. For example, the tat-a-tat-a-tat on an aluminium roof attunes us to the ‘heard’ dimension of rain. Whereas some in early childhood education have encouraged educational researchers to engage in an “active listening” that “necessitates generous interpretation and thoughtful response” (Yoon & Templeton, 2019, p.61) to that which is heard in the lives of young children, our goal in reanimating sound in video is more speculative. Rather than following the common pattern of listening featured in childhood studies (e.g., the auditory comprehension of speech and children’s voices) or film (e.g., the syncretic understanding of sound signifying action in the moving image), we do not only seek to unsettle seeing, but also listening. We ask, what might a more spatial and immersive understanding of sound offer to postqualitative video research? Theorising sound as a more-than-representational resource, we suggest an approach to ‘listening’ to sonic data that moves beyond human audition.

Following Gallagher et al. (2017) and Wargo (2018), we argue for a more expansive form of listening in video research. Tuning in to how sound is inherently spatial – a force that disrupts common geographic concepts such as place, scale and landscape – we understand sound as both a theoretical analytic and methodological tool. Sound, for instance, might allow us to theoretically ask how apparatuses of domination and oppression function in educational spaces (e.g., the classroom bell). In the full film version of “Becoming a Problem: young children and behaviour” – the partner text to MacLure et al. ‘s aforementioned piece¹⁶ – sound is used as a backdrop rather than an acousmatic performative. That is, although viewers ‘hear’ the classroom sounds of a teacher reciting “be careful little ears what you hear”, sound (on its own) does not enact a dissonance in the way the collaged b-roll does. Sound, for MacLure et al., functioned to promote a sonic symbolism made manifest in children’s gestures. The powerful examples from MacRae, Caton, Silvis and Rotas offer an alternative to how child subjectivities emerge out of the vast volume of material often gathered in video research.

Working to reimagine and transform the entanglement of reception/production of sound in video research, we encourage researchers to ask themselves a series of questions: Who made the recording? What technologies enabled its production? Who is listening? Does the space have a sonorous rhythm, timbre and volume? How does sound evoke memories and material re-imaginings? How are bodies shaped by tone and time? What may a diffractive reading across sound and film provide? Although not exhaustive, it is in and through these questions that we seek to render new onto-epistemologies for examining how researchers and teachers, alongside of their students and participants, are always already emergent with theoretical←→pedagogical assemblages of video.

(In)Conclusion

Exemplified through a range of research practices that embraced moving images and sounds, this chapter offers a taste of what working differently with sonic and visual technology may entail. We start with a detour to explore the entanglement between art and science. This section questions how postqualitative research troubles the concept of representation in research. Through a series of investigations, we argue how the inclusion of visual and sonic materials shifts the role of the researcher. Troubling current notions of time and space and human exceptionalism, we rethink “what forms of intelligence, truth and expertise count” (Lorimer, 2010, p.238). We then explore how the use of video and sound challenges the ontologies of humanism with its power-producing binaries that include and exclude. Reanimating video and sound in research practices aims to include the so-called ‘lesser-human’ (e.g., child) and the nonhuman (e.g., cameras) by troubling binaries such as nature/culture, mind/body, inner/outer, cognition/emotion, animate/inanimate, human/animal, human/machine, adult/child. The role of sound is given special attention as an example of readjusting what is valued and heard as crucial to analysing research data. Finally, we theorise how a posthuman relational ontology provides possibilities of rethinking ethics related to video and sound. Reanimating video and sound in research practices raises ethical questions that need to be discussed *before* designing research projects and should not be left to the final stages, as often is the case in, for example, in research method courses. Although we do not provide exhaustive answers or responses to the questions we start our chapter with, we hope that the plethora of examples embedded in the chapter (with suggested activities) will excite and inspire researchers to reanimate and re-imagine research with video and sound.

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¹ The film can be accessed here: <https://vimeo.com/53601049>

² For another powerful example of this, see Anthony Browne's picturebook art as discussed in Murris, 2016, pp. 200-222.

³ You can find examples of his work on his website (<http://www.gilesrevell.com/projects/insects/>)

⁴ Further examples of his work called ornitographies are on his website www.xavibou.com. We would like to thank Xavi Bou for his permission to use of one of his artworks from the series Ornitographies

⁵ The online article <https://www.atlasobscura.com/articles/f-percy-smith-nature-films> showcases his best known films.

⁶ The film can be viewed here: <https://vimeo.com/126499105>. In addition, it can be viewed on the website <https://www.labocine.com>, which is a platform featuring scientific films with a cinematic quality, and also somewhat experimental in pushing the limits of what a scientific film is, or can be.

⁷ The concept of the time-image and *Melancholia* (2011) is also taken up by David Cole in chapter 5, where he invites the reader to do a Deleuzian analysis of the film as an example of a new science analysis.

⁸ You can watch the original historical film footage here:

https://www.youtube.com/watch?v=Vy2Vhnqtu8I&feature=emb_rel_end

⁹ Tesar and Sturm are included as respectively Reviewers 1 and 2 in the innovative collaborative writing exercise Peters et al., 2020.

¹⁰ See also, Jayne White's video article 'Video ethics and young children: An editorial'. in the *Video Journal of Education and Pedagogy* discussing some key questions in research ethics involving very young children. Downloadable from (after seeking permission):

<https://videoeducationjournal.springeropen.com/articles/10.1186/s40990-017-0012-9>

¹¹ See also chapter 7 in this volume.

¹² You can view episodes of the documentary on the following link: <https://www.channel4.com/programmes/the-secret-life-of-4-and-5-year-olds/episode-guide/>

¹³ You can access the video article and download the video clip here:

https://brill.com/view/journals/vjep/4/1/article-p151_151.xml

¹⁴ You can access both here: https://brill.com/view/journals/vjep/4/1/article-p23_23.xml

¹⁵ You can download the video article and clip here:

https://brill.com/view/journals/vjep/4/1/article-p9_9.xml

¹⁶ See footnote 1 for a link to this text.