



Research Article

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Trans*formative Thinking Through Sound: Artistic Research in Gender and Sound Beyond the Human

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Abstract: This article reflects on an ongoing artistic research practice that deals with sound, gender, power, spatiality, and human–nonhuman entanglement. Sparked by a sound design for a less crunchy “lady-friendly” crisp, the research inquires the relationship between gender and sound at human–nonhuman encounter through making and thinking. Drawing on queer theory, sound studies, and posthumanism, it aims to transcend essentialist, vision-focused, and anthropocentric conceptualisations of gender and, as an insight gained from working with low-frequency sound waves, it reflects on sound as *material-philosophically* demonstrating human–nonhuman interconnectedness. The latter, as this article proposes, may encourage us to horizontalise hierarchies between the human and nonhuman. Finally, this text situates sonic thinking as a mode of trans*formative thinking: a process-oriented philosophy that aims to embrace the messy, queer ways of human–nonhuman relationality, which characterises a vibrant space from which this artistic research will further develop.

Keywords: artistic research, sound, gender, spatiality, human–nonhuman, vibration, trans*formation

[O]ur desire for harmony is arbitrary and in another world, harmony would sound incomprehensible. Listening to cacophony and noise tells us that there is a wild beyond to the structures we inhabit and that inhabit us.

– Jack Halberstam, “The Wild Beyond”

1 Introduction

In 2018, Doritos, a crisp brand, wanted to launch a crisp specifically designed for women. This so-called “lady-friendly” crisp would crunch less loudly and fit inside a handbag due to its smaller package size.¹ The Independent² mentioned that managers at PepsiCo, which owns Doritos, claimed that women do not want to make much sound upon eating a crisp when around other people. In an interview with Freakonomics, the former CEO of PepsiCo said: “they [i.e. women] don’t like to crunch too loudly in public.”³ The proposal

¹ Scott, “Doritos Is Launching Special Crisps for Ladies.”

² Hosie, “Doritos Announces Crisps for Women.”

³ Dubner, “I Wasn’t Stupid Enough to Say This Could Be Done Overnight.”

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caused a backlash of cynical and angry outlets on social media, of which many framed this sound design as sexist.^{4,5} Finally, under laws of the Advertising Standards Authority, the “lady-friendly” crisp was not allowed to be marketed as such and PepsiCo withdrew from designing and producing the crisp.⁶

This article aims to give an insight in the development of my research practice that took its specific direction due to the encounter with the “lady-friendly” crisp, in which artistic making and theoretical thinking are reflective of each other. When I first heard about the design for the “lady-friendly” crisp, I had to laugh because I realised how far gender norms reach, even to such seemingly insignificant instances as in the act of biting a crisp. I caught myself frequently thinking about the premises of this crisp in more detail and realised it points at something interesting: the relationship between gender and sound upon human–nonhuman encounter. How does loudness versus quietness play a role in the way we make sense of masculinity and femininity in relation to nonhuman objects such as crisps? Even though the “lady-friendly” crisp has never been developed, the idea itself shows that gender and sound seem to work together when a human body interacts with a nonhuman body. I became fascinated by Doritos’ intended design as an attempt to offer an acoustic choreography for the human and nonhuman that aims to comply with socio-cultural gendered expectations. I started exploring this matter in my research practice.

2 Gender as performative

Before moving to more words on the “lady-friendly” crisp and my own art practice responding to it, I would like to, firstly, refine that I approach gender as performative. That is, I do not think of gender as “man is penis” and “woman is vagina.” Within the parameters of a gender essentialist hegemony, which situates gender as a fixed and intrinsic bodily condition, it is common to say that gender is what we are born with, symptomised by phenomena such as gender reveal parties. In contrast to such essentialist conceptualisation, I theorise gender as something we *do*, as performative, rather than what we *are* and situate it as socio-culturally shaped reality rather than an essentialist phenomenon.

In the humanities and especially in gender and queer theory, Judith Butler has given direction to thinking gender as performative, which means to situate gender as learnt behaviour rather than innate, a culturally constructed *doing*, a contingency, rather than a fixed identity.⁷ Here, the “lady-friendly” crisp design reveals gender to operate as a performative mechanism: under pressure of gender norms, it categorises bodies into “men” and “women” and expects these bodies to perform or refrain from performing certain gendered acts, such as loudly crunching a crisp, to become recognisable as human subjects. The “lady-friendly” sound design made me realise that gendered sound is fundamentally performative and ephemeral. Sound does not have a fixed time and place and can hardly be tied to a way of being, but rather to a way of doing that passes and does not solidify; sound comes and goes.

Secondly, I want to clarify that when approaching gender as performative, this implies that I rather speak of *femininity* and *masculinity* than of “men” and “women” as socio-cultural ways of acting and interacting with the world that inform and are informed by gender norms. Hence, I see femininity and masculinity as *relational* phenomena rather than isolated entities, that is, as phenomena that take a specific shape within a relationship from a human body to other humans, nonhuman objects, environments, and contexts. I consider femininity and masculinity to be ways of behaving, that consists of multi-sensory choreographies, including sound, which can manifest in and around all kinds of human bodies, regardless of what that individual body “is”: woman, man, non-binary, genderqueer, and so forth. More concretely, this means that I aim not to situate “women as silent” and “men as loud” *per se*, but rather want to look at

⁴ Bruner, “The Internet Thinks ‘Lady-Friendly’ Doritos are in Pretty Bad Taste.”

⁵ Richards, “Doritos Plan to Launch ‘Lady-Friendly’ Crisps.”

⁶ Pissani, “Doritos Announced That It Is Not Making a ‘Lady-Friendly’ Chip That Doesn’t Crunch.”

⁷ Butler, *Gender Trouble*; Butler, *Undoing Gender*; and Butler, *Bodies That Matter*.

the socio-cultural frames that have conventionally paired loudness with masculinity and quietness with femininity.

Therefore, when PepsiCo talks about women, I approach this as a claim to womanhood that is an attempt to demarcate the meaning, the belongings and non-belongings, of femininity as a relational phenomenon in-between a human and nonhuman body (the latter being a crisp) in the context of food consumption. Thus, whereas PepsiCo assumed that reducing crunchy sound corresponds to the “needs” of *women*, I rather wonder what precedes this suggestion. Hence, I am curious to further think about the socio-cultural ways in which gender norms have shaped PepsiCo’s assumption and, in turn, how such design proposal leads to reinforcing gender norms.

3 Gendered soundings

Sparked by the “lady-friendly” crisp design proposal, I began to wonder: where else can we find sound designs that are prescribed and, in turn, prescribe gender norms? What came to mind was the sounding of human interaction with cars, vacuum cleaners, jewellery, and high heels as other instances of human–nonhuman encounter that are shaped by and, in their specificities, contribute to gender as performative act. In “The Sound of Stuff,” Anna Symanczyk reveals the archetype of vacuuming sounds and relates this to the gendered use of household devices. She argues that the technological development and advertising of the vacuum cleaner, in contrast to other powerful machines, revolves around demonstrating quietness yet suction power. There is thus a tension between contradicting desirable outcomes of the vacuum cleaner’s design. Likewise, the idea for a “lady-friendly” crisp also contains a tension between a certain “powerfulness” and “quietness,” that is, between crunchiness and noiselessness.

Symanczyk claims that, as a device archetypically associated with the feminine and domestic sphere, the vacuum cleaner has been designed with the aim to not disturb. She analyses a brochure of the Siemens Protos Super Vacuum Cleaner from 1935. The front page shows an image of a feminine, assumed, parent who vacuums a standing lamp and a child in a dress stands next to the vacuum cleaner, leaning in with one hand behind one ear, listening to the vacuum cleaner and seeming surprised as if there is not much sound to detect. Both people in the image smile. Symanczyk argues that noise is implicitly addressed in the image: “through the astonishment of the child, it suggests that other vacuum cleaners are usually not as quiet as the one being promoted”⁸ and thus it claims to have more benefits over others. Therefore, the advertisement reveals an expectation of noise reduction from the vacuum cleaner’s performance, an assumed desire of both parent and child in the picture, as well as of the viewers of the image.

Symanczyk continues and shows that this specific advertisement follows a general trend concerning noise reduction in the product design of the vacuum cleaner, which is, up until today, significantly put forward in advertisements and commercials. The advertisement text accompanying the abovementioned image promoting the Siemens Protos Super Vacuum Cleaner shows that, as Symanczyk points out, the relief of the pleasant quietness does not come to the vacuuming woman or listening child but to others, invisible in the image, such as men working in professional services, “since *she* is no longer disturbing *them* through the unnerving sound of her housekeeping.”⁹ Similarly, when the former CEO of PepsiCo said that women “don’t like to crunch too loudly in public,”¹⁰ there is an invisible other left “undisturbed” by the snacking woman. Following, Symanczyk argues that “sounds are shaped to inform the user about the product, offering practical information about correct use, but they also contain meta-information about the product’s general quality and performance.” Here, I would like to add that product sounds also contain meta-

⁸ Symanczyk, “The Sound of Stuff,” 2.

⁹ Ibid.

¹⁰ Dubner, “I Wasn’t Stupid Enough to Say This Could Be Done Overnight.”

information about socio-cultural power structures, such as gendered power dynamics, that give shape, and in turn, are perpetuated by design.

What meta-information can be drawn from the “lady-friendly” crisp proposal? When imagining concrete examples of gender performativity and gender norms, I realised it is tempting to focus on what can be perceived with the eye, on what a human body looks like: its movement, mannerisms, outfit, body hair, makeup, hairstyle, etc. I recognised that, as potential effect of an overarching dominance of the visual sphere in western existential philosophy,¹¹ I was not used to including sound when making sense of gender. To focus on sound does not seem the most common direction to take when concretising gender performativity. Therefore, I encountered having a small to no theoretical frame to situate phenomena such as the soundings of the “lady-friendly” crisp. This awareness helped me critically inquire the relationship between gender and sound.

In the humanities, when the relationship between gender and sound is addressed, this is commonly done through an analysis of speech, language, music, and the human voice.¹² For instance, Silvia Federici elaborates in *Witches, With-Hunting and Women* on the concept of “gossip” as it transformed over time in Europe. She explains that “gossip” transitioned from an empowering to a derogatory term throughout the Middle Ages. Originally, “a gossip” was a noun referring to a lower-class woman in positive attachment with other lower-class women. The term implied social power, collective strength, cohesion, and strong friendships in the cultural realm of the feminine. The meaning of the term began to change gradually along with the deterioration of women’s social position in the Late Middle Ages under the emergence of capitalist patriarchy. Along with introducing devices such as the scold’s bridle (a metal cage around the head that would literally shut a woman’s mouth), the fact that European women could be brought to court for scolding, and the expectation of wives not to speak out against their husbands, the meaning of “gossip” turned from a word of friendship and affection into a word of denigration and ridicule, which resonates with its contemporary connotation.¹³ In other words, the feminine voice was given increasingly limited space under patriarchal order, which comes to the fore in the transformation of “gossip” from socially desirable to unwanted feminised sound.

An approach to gender and sound such as the above is insightful for today’s meaning of sound in relation to gender normativity within oppressive power mechanisms. However, human-centred approaches like Federici’s, focussing on the human voice as political domain, cannot fully account for phenomena such as the “lady-friendly” crisp since the latter would need a stronger focus on the interaction between the human and nonhuman. Here, in addition to an analysis of intersubjective use of voice, an analysis of music is in closer proximity to analysing sounding interactivity between humans and nonhumans, because it involves human contact with nonhuman instruments and sound technologies.

In *Beyond Unwanted Sound*, Marie Thompson points at the gendered relationship between noise, error, and innovation. She shows that failure in noise music is an artistic strategy and rhetorical device that is not available to all:

the erroneous sounds of male artists are often ‘fetishized as glitch’ and ‘as something beautiful’, whereas the errors of women are often heard as simply markers of failure, rather than expressions of innovation, creativity or artistic intent. In short, whether or not ‘failure’ becomes ‘successful’ often corresponds to the perceived gender of the artist failing.¹⁴

Even though Thompson’s reflection exists within the domain of arts and music, it resonates with the meta-information whispered by the idea for a “lady-friendly” crisp. Namely, by situating loud crisp-crunching as unintended noise, a “failure,” for the conventional feminine, its sounding emerges as a remnant and

¹¹ Jonas, *The Phenomenon of Life*, 135–52.

¹² Butler, *Excitable Speech*; Butler, *Gender Trouble*; Butler, *Undoing Gender*; Butler, *Bodies That Matter*; Carson, “The Gender of Sound;” Cavarero, *For More Than One Voice*; Federici; Geffen, *Glitter Up the Dark*; Thompson, “Gossips, Sirens, Hi-Fi Wives;” Thompson, “Productive Parasites;” Thompson, *Beyond Unwanted Sound*; and Tiainen, “Sonic Performance and Feminist Posthumanities.”

¹³ Federici, *Witches, With-Hunting and Women*, 35–40.

¹⁴ Thompson, *Beyond Unwanted Sound*, 131.

resonant space for the demonstration of the conventional masculine. My question here is: when we, in dialogue with Thompson's remark on failure in noise music, include non-musical sounding as a cultural strategy or a rhetorical device that participates in the performativity and reinforcement of conventional gender roles, could we also use sound as a strategy to subvert these traditional gender norms in human–nonhuman sounding?

4 Sonic manspreading and *FEMMECORE*

As a response to this question, I moved from thinking *about* sound to working *with* sound and started approaching sound *itself* as an artistic sculpting material. It has been a huge leap to include experimental artistic research methodologies into my academic work, because of the hiatus between thinking and making and the far-ranging, at times frictional, rules of conduct in academia as divergent from the arts. Nevertheless, I strongly felt that there is relevant knowledge to gain in practice-led ways of researching with sound. Besides using sound artistically, I began, in clubs and raves, to DJ my favourite music, which is predominantly deep techno and gabber hardcore. When I took this step, I quickly realised sound to be about so much more than what is perceived by the ear: sound is about vibrations, energy, spatiality, and much more that I lacked *feeling* and *embodying* when only reflecting on the thought of sound. In other words, I realised I was missing information when solely theorising sound.

From materially working *with* sound, I understood that sound is not only audible but also tangible and corporeal. I realised that loudness and quietness are not only about decibels but also about vibrations that take material space in their own specific ways. Thus, when a socio-cultural frame imposes quietness onto the feminine, as we have seen with Federici and Thompson, and conceives of loudness as masculine, it either implies a reduction and elimination of space, or, it implies entitlement and privilege to *taking space*. That is, when loudness is socio-culturally facilitated, as it is for the masculine, it enables sound waves to reach further and travel, or pierce, through more matter. Therefore, when a paradigmatic understanding of gender, including its norms and rules of conduct, consider quietness a desired outcome of the feminine, this is also to do with limiting space. Since sound is inseparable from spatiality, I have considered the "lady-friendly" crisp as a proposal that is not only about sound but can also be situated as a proposition for the ways in which certain bodies can take space through sound where others are restrained.

As a starting point and overarching concept for various artistic projects that relate gender to sound and spatiality, I coined the term "sonic manspreading," which became a research concept, a point of departure, that interrogates the acoustics of gender as a *spatial* power mechanism. "Sonic manspreading" complicates the popular notion of "manspreading," which is used in popular media channels, such as Instagram and Twitter, to refer to masculine bodies in public transport spreading their legs wide apart and thereby covering more than one seat. The term manspreading is often used in caption texts of images that show masculine bodies taking up disproportionate space at the cost of others. It is used to flag moments of masculine gender performativity where space-taking occurs, and it has gained meaningfulness with a vision-focussed idea of spreading as taking space. With "sonic manspreading" I therefore borrowed a popular term and added a sonic focus with the aim to add to the dominant visual perception of what masculinity entails, and open for thinking about gender performativity in relation to sound as spatial matter.

One of the projects under "sonic manspreading" as overall research concept is a sound composition called *FEMMECORE* (2019).¹⁵ As a response to Doritos' idea for a "lady-friendly" crisp, the aim for this composition is to take a wide acoustic space with crunching crisps. I challenged myself to only work with my body (which is usually perceived as feminine), a crisp bag, and crisps as music instruments. I sampled recordings of eating, smashing, and punching crisps and crisp bags in differently resonating spaces. In the final composition, inspired by gabber hardcore music, the "kick drum" is a sample of my hand smashing a

¹⁵ See www.lucasoudant.com/femmecore for access to the composition.

crisp bag in a reverberating shower cabin and the off-beat “high hat” is my mouth crunching a crisp. The lyrics of the composition reflect on being tired from “guarding my sounds” and being limited to an acoustic vertical space as a feminine person.

FEMMECORE has been played loudly in various art spaces. When showing this work, I textually informed exhibition visitors why the track was made of only crisps and my body. In some situations, I informed people through written text, present in the exhibition space and, in other situations, I verbally elaborated on the sound piece. Overall, I observed it made people laugh when I informed them why I decided to make a loud track of a feminine body crunching crisps: when society seems to produce a logic that has established the feminine to go hand in hand with muted crisp-crunching, as Doritos suggested, I will make a loud track of a feminine body crunching crisps. I can imagine the work made people laugh because it exactly performs what social norms have created as undesirable from a feminised body.

The laughter of different audiences made me speculate on what laughter can do. In my view, laughter can break tension, open for reflecting on taboo subjects, and, literally, undo the body from tightness. Laughter is a bodily sound, a reverberation, that changes the vibration of body cells and surrounding matter. A laugh *does something*; it transforms matter(s) because it changes textures. Evidently, I cannot look in the minds and bodies of audience members, but I hope that the humour within *FEMMECORE* has been an open invitation to thinking more seriously about our sonic interactions with the outside world as being directed by gender norms. As a work that aims to point at “listen, also sound matters in how bodies are policed under gender normativity,” I wish that *FEMMECORE* generates a sensitivity, a gentle ripple-effect, in noticing more forms of being space-privileged or space-limited when gender and sound are concerned.

5 Sound beyond the human

Since realising sound is about space, and space being disproportionately distributed amongst the masculine and feminine, I started longing for a deeper theoretical reflection that could make more sense of the relation *in-between* human and nonhuman bodies. After producing *FEMMECORE*, which has predominantly been exhibited as a “finished” music track, containing a rather direct message and with a clear beginning and end, I was desiring a more profound way of engaging with the open-ended interconnectedness of the human and nonhuman. How could I more thoughtfully work with gender, sound, and spatiality *in relation to the more-than-human world*, including nonhuman sound? I started inquiring what theoretical frames could benefit an analysis of gender performativity from an acoustic perspective that accounts for how gender is *philosophically* constituted in relation to the nonhuman such as in the instance of the “lady-friendly” crisp.

Posthumanist feminism and new materialist theory have provided a thinking-space in which the crisp, for instance, receives more attention for how it is included in a gender performative act. That is, scholars in the field of posthumanist feminism and new materialism have criticised gender and queer studies for its anthropocentrism and added the significance of the nonhuman and inorganic to the analysis of the performative.¹⁶ They encourage us to imagine ourselves as inherently intertwined with our always-changing environment and therefore reject a strict subject/object divide, thus complicating earlier discursive philosophical understandings of performativity, subjectivity, and agency.¹⁷ I have followed this posthumanist thinking-space as useful for approaching gender as a performative phenomenon in relation to the nonhuman.

¹⁶ Alaimo, “Trans-Corporeal Feminisms and the Ethical Space of Nature;” Barad, *Meeting the Universe Halfway*; Colebrook, *Deleuze*; Colebrook, “On Not Becoming Man;” and Colebrook, “What Is It Like to Be Human?.”

¹⁷ Alaimo, “Trans-Corporeal Feminisms and the Ethical Space of Nature;” Bennett, *Vibrant Matter*; Braidotti, *Metamorphoses*; Braidotti, *The Posthuman*; Colebrook, *Deleuze*; Colebrook, “On Not Becoming Man;” Colebrook, “What Is It Like to Be Human?;” Deleuze and Guattari, *A Thousand Plateaus*; Grosz, *Volatile Bodies*; Haraway, “A Cyborg Manifesto;” and Shildrick, “Why Should Our Bodies End at the Skin?.”

In “A Cyborg Manifesto,” Donna Haraway asks: “Why should our bodies end at the skin?”¹⁸ Through this question, Haraway interrogates the entanglement of the human body with technologies and challenges the boundaries of the human subject. Where does subjecthood, the gendered body, start and end when a muted crisp or vacuum cleaner could be approached as participating in the performativity of feminine? Haraway’s question opens for including the nonhuman into the conceptualisation of subjecthood. Here, Margrit Shildrick further complicates the limits of the body, from the perspective of disability studies by taking up the phrase “Why Should Our Bodies End at the Skin”¹⁹ as an article title. She extends thinking about the body as not ending at the skin with a focus on nonhuman material prosthesis, like a prosthetic leg, as constitutive and ontologically *part of* the body. So too, Elisabeth Grosz questions the limits of the human body in her notion of “volatile bodies”:

[the body] in its active relation to other social practices, entities and events forms machinic connections ... The body is thus not an organic totality which is capable of the wholesale expression, but itself an assemblage of organs, processes, pleasures, passions, activities, behaviors, linked by fine lines and unpredictable networks to other elements, segments and assemblages.²⁰

Here, Grosz extends the boundaries of the subject – the body ending at the skin – to be thought of as an assemblage, a multiplicity, of elements ontologically overlapping and in resonance with other bodies and social practices, such as a crisp-eating in a gender normative context. This resonates with Stacy Alaimo’s concept of “trans-corporeality” in which she points at the porosity of human bodies: “Imagining human corporeality as trans-corporeality, in which the human is always intermeshed with the more-than-human world, underlines the extent to which the corporeal substance of the human is ultimately inseparable from ‘the environment.’”²¹

In *Meeting the Universe Halfway*, Karen Barad argues that human and nonhuman bodies and power dynamics are not isolated entities but “material-discursive practices”:²² materiality and discursivity – crisps, humans, and gender norms – are co-constitutive of each other; they participate in each other’s ontology. Barad comments on the anthropocentric view of bodily relationality in poststructuralist thought. Barad criticises discursive understandings of performativity in gender and queer studies: “Butler’s theory of materiality is limited to an account of the materialisation of human bodies or, more accurately, to the construction of the contours of the human body.”²³ Barad adds the complexity of nonhuman material phenomena as performative and agentic. So, where Butler leaves us with human *Bodies That Matter*, Barad turns to “How Matter Comes to Matter.” As such Barad moves from a Butlerian intersubjectivity to an “intra-sub/objectivity,” which allows for considering nonhuman matter, such as the “lady-friendly” crisp, as co-constitutive of the performative: “all bodies, not merely “human” bodies, [that] come to matter through the world’s iterative intra-activity – its performativity.”²⁴

Extending the concept of the body to nonhuman material, Haraway, Shildrick, Grosz Alaimo, and Barad echo a Deleuzian notion of the body as assemblage. Deleuze namely insists that “we should interrogate the genesis of *any* organised body or relatively closed form – including the bodies of humans, societies, art, philosophy and science – and move to the “body without organs,” or the forces from which bodies are composed.”²⁵ The Deleuzian notion of a body as an assemblage seeks to account for the fluidity, multiplicity, ever-changing, and bodily states of matter in becoming and could include the ephemeral crisp soundings in relation to the gendered human body. The emphasis for Deleuze lies especially on the relations in-between bodies that are in a state of constant fluctuation. In that sense, all forms of matter are in an

¹⁸ Haraway, “A Cyborg Manifesto,” 178.

¹⁹ Shildrick, “Why Should Our Bodies End at the Skin?,” 13.

²⁰ Grosz, *Volatile Bodies*, 120.

²¹ Alaimo, “Trans-Corporeal Feminisms,” 238.

²² Barad, *Meeting the Universe Halfway*, 132–88.

²³ Ibid., 151.

²⁴ Ibid., 152.

²⁵ Colebrook, *Deleuze*, 30.

“eventful” assemblage and therefore co-constitutive of each other.²⁶ This underwrites a performative approach to gender, which includes the nonhuman into the *happening of gender as performative assemblage* that could be otherwise.

A posthumanist and new materialist approach allows us to theoretically situate the crisp, amongst others, as a nonhuman body that actively contributes to gendered subject formation. That is, a posthumanist and new materialist theoretical frame takes the materiality of the crisp seriously as a site of agency, performativity, and cultural meaning-making. Therefore, it can account for how gender is constituted beyond the human, including nonhuman sound and how this sounding materialises into space. On top of that, because posthumanism approaches phenomena as inherently relational and in constant fluctuation, it could be an emancipatory space that acknowledges phenomena, such as gendered power dynamics, as malleable and therefore susceptible for change.

But then, beyond addressing and making work *about* gender and sound in human–nonhuman interaction, as I tried in *FEMMECORE*, what does a posthumanist and new materialist philosophy *materially* mean to an artistic research practice that inquires gender, sound, and spatiality? In other words, I felt an urge to inquire how I could move from making work *about* gendered sound in human–nonhuman contact to making work *with* sound as matter that philosophically includes the nonhuman as agentic within the performative.

6 Low frequencies

In response to the latter urge, I have found refuge in experimenting with low-frequency sound waves and their potential to, literally and philosophically, shake up bodies of all sorts (human and nonhuman). Further than exposing acoustic gender norms, such as for *FEMMECORE*, working with low and loud frequencies as sculpting material has shifted the focus from addressing power structures to an attempt to materially push through them. That is, in *FEMMECORE*, I may have shown gender norms to operate acoustically in relation to the nonhuman as it occurs in this world right now. But then, through experimenting with low-frequency sound waves I have found an opening that transcends the act of revealing what is already here (i.e. gender norms) and moves towards, as I see it, more liberated, conceptual, and philosophical spheres. In other words, I feel beauty, emancipation, non-fixity, insight, excitement, philosophy, and belonging in working with deep low-frequency sounds.

Recently, I conducted a cluster of low-frequency sound experiments in the cellar of a former grain storage that has been squatted for almost twenty years. This dark and cold basement at the river side in Maastricht is roughly 200 squared meters. Its concrete walls, low ceiling, many concrete pillars, heavy metal doors, and large grain funnels originate from when it was a warehouse. One of the squat’s residents has built a sound system from scratch that inhabits the basement. In addition to two tweeters and mid-range speakers (for the high and middle frequencies) it has a bulky woofer, which is approximately as big as my kitchen counter. It generates deep low-frequency sound waves, even below 20 hertz, which is the tipping point from where most people stop hearing and only feel the vibration of sound. Clearly, the existence of this sound system and its magnitude, both in size and reach, intrigued me and I asked if I could do some experiments.

In the presence of the sound system’s creator, Jimmy, I executed a few experiments with low frequencies and resonant vibrations. During one of these experiments, I fed the sound system with low-frequency sine waves, coming from sound-programming software on my computer. We took off by experimenting with resonant frequencies for about an hour. A resonant frequency is a natural frequency of an object at which it tends to vibrate at a higher amplitude. For instance, at 31 hertz we could suddenly hear a metal door “come to life” further down the basement. That is, at this specific frequency, it started vibrating loudly, oscillating

²⁶ Coleman and Ringrose, “Looking and Desiring Machines,” 5–9.

at a higher amplitude, whereas it did not respond as vibrantly to sine waves of 32 hertz. Then, moving on to 53 hertz, a huge metal plate in the ceiling above our heads started trembling so loudly that we could barely hear each other. We discovered that varying objects respond differently to distinctive frequencies. It was as if we were pointing sonic spotlights to different objects in the space.

Upon hearing the metal plate above our heads, I climbed on a ladder, touched the surface, and let the strong vibrations move through my hands into my arms. It felt energising somehow. At some point, Jimmy said: "Wow, I can feel this frequency in my kidneys!" When we shifted our attention from the oscillating objects around us towards our own organs, flesh, and bones, we felt that certain frequencies (ranging from 20 to 70 hertz) were clearly tangible in the kidneys whereas others moved upwards, more to the elbows and skull. Instead of considering listening as an activity with the ears, we started listening with our entire body. Was this still listening or was it hard to distinguish listening from feeling at this point? For Jimmy it was different than for me regarding where exactly in the body we sensed vibrations. Certain body parts of Jimmy were "activated" together with certain objects in the space, whereas for my body, other organs and parts were moving along with other objects.

At a certain moment, I started layering different frequencies on top of each other. What happens then, is that sine waves start beating into each other, which means they cancel each other out and generate a "pumping" and "wavy" soundscape. Soaring deep vibrations began to travel through the cellar with equal intervals. It felt dizzying and disorienting, even to the point of feeling nauseous. Our voices were "surfing" on the sound waves, which, at certain instances, made my own voice disappear or appear to me as "robotic." When we finished this experimental session, the silence afterwards felt like catching breath after a run and my hands were sweaty.

Another day, we experimented with sine waves below 20 hertz. A sound system needs a lot of power to be able to produce such low frequencies in high amplitude, but we got there. It was bizarre to experience the tilting point when we stopped hearing sound and were left with only feeling strong vibrations crossing our flesh. Especially my upper body, between the upper back and chest, felt like being compressed and released, as if two large hands sandwiched my body. In a way, this sensation alludes to a feeling of transcendence: I did not feel separate from the environment since I sensed vibration along the walls, air, and doors in the space and it felt almost as if I left my body for a while and experienced being in unity with my surrounding. Was I, at this point, still listening?

The insights gathered in the experiments mentioned above merged in a soundscape that I played live for a group of about fifteen participants for thirty minutes. It consisted of gradually layering multiple low frequency sine waves onto each other, some of them stretching below 20 hertz, which created an increasingly chaotic, pumping, haptic, and wavy mess of sine waves beating into each other and built, for me in that moment unpredictable, patterns of muted and soaring sounds. Beforehand, I told the participants that they could move freely through the space and do whatever they want: sit down, dance, close their eyes and/or ears, etc. After thirty minutes of layering sine waves, I stopped feeding the sound system and slowly decreased the volume until it was quiet. Then, we sat together and shared feelings and sensations.

One of the participants felt very uncomfortable with the soundscape due to its disorienting sensation and how this was tangible in and through the entire body. Someone else expressed feeling emotional, because the deep vibrations triggered a euphoric and nostalgic feeling related to experiencing music in a crowd, club, or festival which had not been possible due to COVID-19 for about a year in the moment of performing this soundscape. Another person felt energised and mentioned discovering, like Jimmy and I did, certain objects to start vibrating on certain frequencies. Another person said to have felt intense vibrations in his skull. While talking with the participants, I realised how the haptic sensation of sound in togetherness with the space and its objects can evoke far-ranging effects, emotions, sensations, and insights.

What I understood more broadly is that, since sound travels and pierces through, human and non-human bodies at the same time, low frequencies can materially and philosophically reveal to us how all sorts of matter are entangled and show to be non-discriminatory in affecting, that is simultaneously vibrating, human bodies, doors, objects, insects, materials, and the air in a given space. Low frequencies could thus make us aware that sound in general materially moves us and that which we are entangled with,

may it be on an atomic or tangible level. Immersed in a sea of low-frequency sound waves, one can learn from haptic experience that sound is not what we hear but what we feel with our entire body and vibrates us in togetherness with other (nonhuman) bodies. Sound is not selective in which bodies it vibrates and can therefore encourage us to *material-philosophically* horizontalise the hierarchies between the human and nonhuman, which have historically served to maintain anthropocentrism. To my practice, this offers an exciting theoretical and embodied model to think of human–nonhuman assemblages as multi-aspect, dynamic, site-specific, and contingent performativities.

7 Sonic thinking as trans*formative thinking

In *Vibrant Matter: A Political Ecology of Things*, Jane Bennett argues for a recognition of the active participation of nonhuman forces in political structures as ongoing shape-shifting congregations. She coins the term “vital materiality,” which can be considered the omnipresent vibrancy of matter. That is, in line with the Barad’s concept of “material-discursive practices,”²⁷ Bennett theorises agency as emerging from and distributed amongst the human and nonhuman, which offers an innovative outlook on political acts as emergent from vibrant and vital assemblages rather than individual and singular people or things.

By adding vibrancy to the idea of human–nonhuman entanglement, Bennett’s work could act as a fruitful link from posthumanist feminism and new materialist thought to sound studies and sonic thinking. As Bernd Herzogenrath mentions: “sound is not a knowledge *about* the world, coming to you only in retrospective reflection, but a thinking *of* and *in* the world, a part of the world we live in, intervening in the world directly.”²⁸ In that sense, thinking with sound, or sonic thinking, is about immanence as a constant vibration we are absorbed in. It is about being fundamentally swallowed up by the world and not to be separated from or stand above it. To think *with* sound vibrations is to be immersed in the world as a horizontal and ongoing eventfulness that we can *know* through carefully listening to – and feeling – the vibrancy of matter as ecologies in constant motion.

Sonic thinking therefore implies “a philosophy that is process-oriented: an ontology of becoming, not of being, which recognises entities as events and contingent actualisations of virtual potentiality.”²⁹ In my practice I therefore approach sonic thinking as thinking of (nonhuman) matter in performative assemblages, as “volatile bodies,”³⁰ “trans-corporealities,”³¹ “material-discursive practices,”³² and “vital materialisms.”³³ Moreover, thinking *with* and *by means* of sound may be part of a trans*formative thinking, because it is dedicated to a messy, a queer, world in becoming in which phenomena, such as a gender, are not fixed; they come and go. To think with sound and to be immersed in low frequencies is thus to refrain from considering transformation and change as a transition from A to B but appreciate change and trans*formation as process that spreads, leaks, vibrates in multiple directions simultaneously.

In the spelling of trans*formation, I use an asterisk because its shape points to multiple directions. Its use forbids any definite meaning of what a transition might be and resists sheer binaries and polarisation. This specific spelling of trans* is common in the field of transgender studies, which has been important to the acknowledgement of gender as a multi-faceted and process-oriented performativity, rather than an outcome-oriented ontology. In the introduction of *TSQ: Transgender Studies Quarterly*, Susan Stryker and Paisley Currah call attention to the asterisk in the logo of the journal: “our use of the asterisk (symbol of the

²⁷ Barad, *Meeting the Universe Halfway*, 132–88.

²⁸ Herzogenrath, *Sonic Thinking*, 1.

²⁹ Ibid., 4.

³⁰ Grosz, *Volatile Bodies*.

³¹ Alaimo, “Trans-Corporeal Feminisms,” 238.

³² Barad, *Meeting the Universe Halfway*, 132–88.

³³ Ibid.

open-ended search) [is] our hopefully not-too-obscure gesture toward the inherently unfinished combinatorial work of the *trans-* prefix.”³⁴ Also, Jack Halberstam mentions in *Trans**:

the asterisk modifies the meaning of transitivity by refusing to situate transition in relation to a destination, a final form, a specific shape, or an established configuration of desire and identity. The asterisk holds off the certainty of diagnosis; it keeps at bay any sense of knowing in advance what the meaning of this or that gender variant form may be, and perhaps most importantly, it makes *trans** people the authors of their own categorizations.³⁵

Additionally, outside of theorising gender as performative, and thinking gender beyond essentialism and binaries, thinking about *trans** as “a name for expansive forms of difference, haptic relations to knowing, uncertain modes of being, and the disaggregation of identity politics”³⁶ is helpful on a broader scale. It is valuable for recognising many more shape-shifting power formations beyond binaries; an approach that resonates with the process-oriented philosophy in sonic thinking, posthumanist feminism, and new materialism. Moreover, in physically sensing sound, one can also speak of “haptic relations to knowing,” which Halberstam mentions in the quote above, through physically experiencing most phenomena to be non-binary and swirling around in multiplicities. Here, sound waves have started to matter to me (in both senses of the word) as a site for further artistic exploration into *embodied knowing* and haptically understanding the world not to exist of isolated entities but of relations in ongoing change.

As quoted from Halberstam at the beginning of this text: “*listening to cacophony and noise tells us that there is a wild beyond to the structures we inhabit and that inhabit us*,”³⁷ for the future of my artistic research practice, I hope to dive into the wild beyond and investigate how sound can encourage further *trans**formative thinking, taking affective, alternative, material, and philosophical space and transcending a gender normative “here and now.” Since I have come to relate to low frequencies as a playground for queer ways of life and posthumanist relating, I want to continue performing low-frequency sound sessions with groups of people in different resonating spaces. By using sound as a sense-crossing sculpting material, across hearing and feeling, I hope to further explore *trans**formative sonic spaces and full immersions into sound, to, literally, push through matter(s), discuss power, create (gender) fluid spaces, and playing with wild sites of knowing and being, beyond binaries and in harmony with the messy, queer, multi-directional, fluid, and ever-changing worldly performativities.

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References

Alaimo. “Trans-Corporeal Feminisms and the Ethical Space of Nature.” *Material Feminisms*, 237–64, edited by Stacy Alaimo and Susan Hekman. Bloomington: Indiana UP, 2008.

Barad, Karen. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham & London: Duke UP, 2007.

Bennett, Jane. *Vibrant Matter: A Political Ecology of Things*. Durham & London: Duke UP, 2010.

Braidotti, Rosi. *Metamorphoses: Towards a Materialist Theory of Becoming*. Cambridge: Polity Press, 2002.

Braidotti, Rosi. *The Posthuman*. Cambridge: Polity Press, 2013.

Bruner, Raisa. “The Internet Thinks ‘Lady-Friendly’ Doritos are in Pretty Bad Taste.” *Time*, 5 February 2018. <https://time.com/5133674/lady-doritos/>.

Butler, Judith. *Bodies That Matter: On the Discursive Limits of Sex*. 1993. New York: Routledge, 2011.

Butler, Judith. *Excitable Speech: A Politics of the Performative*. New York: Routledge, 1997.

Butler, Judith. *Gender Trouble: Feminism and the Subversion of Identity*. 1990. New York: Routledge, 1999.

³⁴ Stryker and Currah, “Introduction,” 1.

³⁵ Halberstam, *Trans**, 4.

³⁶ Ibid.

³⁷ Halberstam, *The Wild Beyond*, 7.

Butler, Judith. *Undoing Gender*. New York: Routledge, 2004.

Carson, Anne. "The Gender of Sound." *Glass, Irony and God*, 119–42. New York: New Directions Publishing Corp, 1992.

Cavarero, Adriana. *For More Than One Voice: Toward a Philosophy of Vocal Expression*. Translated and with an introduction by Paul Kottman. Stanford: Stanford UP, 2005.

Colebrook, Claire. "On Not Becoming Man: The Materialist Politics of Unactualized Potential." *Material Feminisms*, 52–84, edited by Stacy Alaimo and Susan Hekman. Bloomington: Indiana UP, 2008.

Colebrook, Claire. "What Is It Like to Be Human?." *TSQ: Transgender Studies Quarterly* 2:2 (2015), 227–43. Durham: Duke UP.

Colebrook, Claire. *Deleuze: A Guide for the Perplexed*. New York & London: Continuum, 2006.

Coleman, Rebecca and Jessica Ringrose. "Looking and Desiring Machines: A Feminist Deleuzian Mapping of Bodies and Affects." *Deleuze and Research Methodologies*, 125–44, edited by Rebecca Coleman and Jessica Ringrose. Edinburgh: Edinburgh UP, 2013.

Deleuze, Gilles and Félix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. Translated by Brian Massumi, Minneapolis: University of Minnesota Press, 1988.

Dubner, Stephen. "I Wasn't Stupid Enough to Say This Could Be Done Overnight." *Freakonomics*, 31 January 2018. <https://freakonomics.com/podcast/indra-nooyi/>.

Federici, Silvia. *Witches, Witch-Hunting and Women*. Oakland: PM Press, 2018.

Geffen, Sasha. *Glitter Up the Dark: How Pop Music Broke the Binary*. Austin: University of Texas Press, 2020.

Grosz, Elisabeth. *Volatile Bodies: Toward a Corporeal Feminism*. Bloomington and Indianapolis: Indiana UP, 1994.

Halberstam, Jack. "The Wild Beyond: With and for the Undercommons." *The Undercommons: Fugitive Planning & Black Study*, 2–12, edited by Stefano Harney and Fred Moten. Wivenhoe, New York & Port Watson: Minor Compositions, 2013.

Halberstam, Jack. *Trans*: A Quick and Quirky Account of Gender Variability*. Oakland: University of California Press, 2018.

Haraway, Donna. "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century." *Simians, Cyborgs and Women: The Reinvention of Nature*, 149–81. New York: Routledge, 1991.

Herzogenrath, Bernd. "Sonic Thinking – An Introduction." *Sonic Thinking: A Mediaphilosophical Approach*, 1–22, edited by Bernd Herzogenrath. New York & London: Bloomsbury, 2017.

Hosie, Rachel. "Doritos Announces Crisps for Women." *The Independent*, 5 February 2018. www.independent.co.uk/life-style/food-and-drink/doritos-crisps-women-chips-handbag-size-bag-crunch-sound-crumbs-a8194891.html. Accessed 3 December 2018.

Jonas, Hans. *The Phenomenon of Life: Toward a Philosophical Biology*. New York: Harper & Row Publishers, 1966.

Pissani, Joseph. "Doritos Announced That It Is Not Making a 'Lady-Friendly' Chip That Doesn't Crunch." *The Associated Press*, 6 February 2018. <https://www.insider.com/doritos-not-making-lady-doritos-chips-2018-2>.

Richards, Alexandra. "Doritos Plan to Launch 'Lady-Friendly' Crisps Sparks Backlash Among Women." *Evening Standard*, 6 February 2018. <https://www.standard.co.uk/news/uk/doritos-plan-to-launch-lady-crisps-sparks-backlash-among-women-a3757971.html>.

Scott, Ellen. "Doritos Is Launching Special Crisps for Ladies That Don't Crunch as Loudly." *Metro*, 5 February 2018. <https://metro.co.uk/2018/02/05/doritos-launching-special-crisps-ladies-don-t-crunch-loudly-7287108/>.

Shildrick, Margrit. "Why Should Our Bodies End at the Skin?." *Hypatia: A Journal of Feminist Philosophy* 30:1 (2014), 13–29.

Stryker, Susan and Paisley Currah. "Introduction." *TSQ: Transgender Studies Quarterly* 1:12 (2014), 1–18.

Symanczyk, Anna. "The Sound of Stuff: Archetypal Sound in Product Sound Design." *Journal of Sonic Studies* 10 (2015), 1–4.

Thompson, Marie. "Gossips, Sirens, Hi-Fi Wives: Feminizing the Treat of Noise." *Resonances: Noise and Contemporary Music*, 297–311, edited by Michael Goddard, Benjamin Halligan and Nicola Spelman. New York & London: Bloomsbury, 2003.

Thompson, Marie. "Productive Parasites: Thinking of Noise as Affect." *Cultural Studies Review* 18:3 (2012), 13–35.

Thompson, Marie. *Beyond Unwanted Sound: Noise Affect and Aesthetic Moralism*. New York & London: Bloomsbury, 2017.

Tiainen, Milla. "Sonic Performance and Feminist Posthumanities: Democracy of Resonance and Machinic Sounds." *A Feminist Companion to the Posthumanities*, 103–16, edited by Cecilia Åsberg and Rosi Braidotti. Cham: Springer, 2018.