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Technology and choral music: A mediated approach

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ABSTRACT

Engaging the Female Ear praxis [1], this paper investigates how the presence of audiovisual technologies in a 'gendered space' interacts with the way in which music producers and sound recordists feel about the co-creation of art, defined here as musicking [2]. It scrutinizes the extent to which the preconception of the male lens manifests itself regardless of the gender of the person doing the postproduction. This analysis enables us to deconstruct the impact of the production ideals having been developed over time for men, on men, by men.

1 Introduction

The Anglican choral tradition has been developed on an androcentric platform and has maintained this culture of exclusivity over its evolution. It is only since the 1990s that some of the cathedral foundations have begun to question and enact change to allow the integration of girls as choristers within their choirs, and women mezzo-sopranos and contraltos onto the back rows. Recordings made within this tradition often strive to replicate the sounds that would be heard by the listeners in the same physical location as a live performance. This realistic ideal that is strived for is biased, as it is dictated by the lens of the music producer and sound recordists.

During the Covid-19 pandemic, it was necessary for some of the institutions inside the Anglican choral tradition to invest in or utilize already installed streaming equipment to continue to share their performances with outside audiences. These audiences would only have access to the musicking [2] through the streaming link provided by the institution, limiting the way in which they experience the performance. This imposed

limitation on the listener is dictated by the sound recordist, as they control the narrative of the 'space' through their placement of microphones and virtual replication of said 'space' through choices made in postproduction.

Access to many musicking spaces is historically restricted to those who are not men, and the environment of these 'spaces' is often sustained by the developed societal acceptance and insistence on the maintenance of exclusive behaviors and standards. Given the androcentric nature of the Anglican choral tradition, the space that is created for musicking that results as a recorded artifact to take place is inherently gendered, a stereotype also perpetuated in audio environments. A typical example of these choirs is where children (from the age of 7) and adults come together in religious institutions to make music, with their predominant purpose being to provide the music for liturgical services. These choirs can be found in cathedrals, colleges in Oxford and Cambridge, and in some parish churches. The altos, tenors, and basses (usually with a combined number of between six and twelve), who support the top line of boys, girls, or a mixture of the two, tend to be a combination of lay clerks who are paid professionals, choral

scholars who are still in full-time education, whether at school or at university, and in some cases volunteers. In some instances, the children on the top line are replaced with adult sopranos, who are predominantly female.

Across the Top 50 Classical Songs of 2022 only 7.6% of tracks had credits for people in key tech roles who identify as women and non-binary [3]. As Alison Wenham, who is previous Chair of the Association of Independent Music (AIM), states in personal communication to Paula Wolfe, “no industry really has the time to invite people to come in whatever it is [4]”¹. The resources and the time that it takes to begin the integration of girls and women into these spaces are immense, but deconstructing the tradition to move towards a more even gender-balance within these spaces is vital.

I present an examination of how the increasing use of audio and visual technologies (used for recording and live-streaming purposes) impacts the musicking [2] of the active participants within Anglican choral performance settings and reinforces the gendered biases of the practice. The role of women working in technical roles within this specific environment² is evaluated, examining how the presence of women working in audio in these spaces impacts the perceived effectiveness of the work.

2 Theoretical Framework

2.1 Methodology to deconstruct gendered spaces

I aim to further define the Female Ear praxis³ that examines how “recording, editing, mixing, and mastering decisions produce a listener position within an auditory world that imposes a specific perspective on the music [1]”⁴. This paper takes this work forward and explores the concept that even though every listener is afforded the same advantage from their perceived location, the auditory viewpoint they are given may well have been cultivated through a male lens. This male lens may well be present regardless of the gender of the person doing the postproduction, as the production ideals that have been developed over time have been designed for men, on men, by men. Our “Female Ear

proposes a toolkit for studio professionals to reflect upon the gender of the listener-position of their productions, and for female-identifying musicians to communicate their sound desires to studio professionals and avoid misunderstandings [1]”⁵.

This research follows an ethnographic approach and extends Georgina Born’s Mediation Theory [5], which is used to analyze the ‘socialities’ of specific music scenes and practices. Born’s theory acknowledges the four axes or groups of people that are involved in the social creation of music, all of whom interact in the linear process of musicking.

These groups are:

1. the primary participants of the music-making: the musicians, the administrators, the sound recordists, and the music producers.
2. the intended audience: the supporters of the ensemble, the family, and friends of the musicians.
3. the actual audience: those who engaged with the material.
4. the financial stakeholders and cultural institutions, which include churches and radio stations such as BBC Radio 3.

This relationship (or lack thereof) between performer, sound recordist, music producer (Born’s primary participants [5] in the musicking, or the ‘musicers’) and the listener (the actual audience, axis 3) becomes particularly vital when considering what musicking means in the context of a recording of ‘music’ within the Western classical tradition. As Nicholas Cook notes (reinforcing Christopher Small [2]), “music was necessarily a social activity in the days before mechanical sound reproduction [6]”⁶, for there was no way to share in the experience than to be physically present at the time when the music was being created. Whilst during a live performance it is the case that “[a]ll actors involved in a particular music-producing and music-listening situation are involved for the same amount of time and are exposed to (or produce) the same ‘parts’ of music at the same time [7]”⁷, this is not necessarily true in terms of the musicking that happens in a recording’s co-creation. In the process of co-creation, there can be tens of performances recorded and assimilated to

¹ (pg. 30)

² Defined here as the ‘gendered space’.

³ Formalized by Pras, Brereton and me in “Unveiling the Female Ear”.

⁴ (pg. 2)

⁵ (pg. 2)

⁶ (pg. 341)

⁷ (pg. 83)

create the final picture that is presented as the ‘musicking’, and thus making the participation ratio between the musickers and listeners unbalanced.

For the data analysis, Born’s Mediation Theory is combined with the framework provided by Derald Wing Sue et al.’s Microaggression Theory [8]. I draw upon this framework to analyze gender biases within this musicking practice. Originally defined by Chester Pierce [9], a professor of education and psychiatry at Harvard Medical School, Sue et al. define racial microaggressions as “brief and commonplace daily verbal, behavioural, or environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative racial slights and insults toward people of colour. Perpetrators of microaggressions are often unaware that they engage in such communications when they interact with racial/ethnic minorities [8]”⁸. The experiential reality of microaggressions create barriers when looking towards change in musicking spaces. Grace Brooks et. al observe in their 2021 AES paper (which reports the results of a survey intended to capture experiences of discrimination and microaggressions in the workplace) Sue and his team have effectively summarized the effect of microaggressions on their targets, which range from increased stress, depression, and other tolls on their wellbeing [10].

2.2 The production of musicking

In the co-creation of recorded music, the term ‘producer’ is associated with the specific functions necessary to produce and ultimately record pieces of music. The function of the *music* producer is to turn what can be construed as something that is abstract, the act of musicking [2] itself, into something that is both tangible and a product. This is not to say that the recorded medium is the only form of musicking that can become a product, it should be acknowledged that live performance is a commodity, but by attributing the role of producer specifically to music made in the recording environment highlights the way in which we see music performed through the recorded medium as a product that is to be consumed. The music producer here acts as an intermediary between the performers and their cultural audience and stakeholders.

The music producer must facilitate the musicking

without interfering with an already established music-making process. “[H]er new language must borrow from the shared language of the past to develop and highlight its novelty, just as it depends on the shared language of the future if it is to remain comprehensible [11]”⁹. By thinking of musicking as a practice executed only in a live setting creates a rigidity that does not allow for additional parties to be added to the production line. This rigidity does not give space for the art form to develop past the window of time in which it was created. By thinking of musicking as an experience, the process is opened to all parties and allows it to move forward and adapt to the society in which it exists.

With so many primary participants (axis 1) of the musicking involved in the co-creation of musicking for a recorded artifact, it is important to consider what interpretation means in this context. For Stanley Fish, “interpretation is not the art of construing but the art of constricting. Interpreters do not decode poems, they make them [12]”¹⁰. This view focusses the idea of musicking [2] as an experience in the present, with the concurrent musickers (whether performing, facilitating, or listening). If it is acknowledged that the difference between understanding and interpretation lies in whether further thought is required to clarify the sentence or the artifact, then it does become easier to define the roles of the specific parties involved, as each process within this clarification requires a specific skillset. It is therefore necessary to identify which party is responsible for driving change in the Anglican choral recording tradition. The decided-on approach needs to allow for all musickers in the co-creation of the recorded artifact to have their specific contributions acknowledged, ensuring the work to flourish without disregarding the roles of any parties involved in the process. This is particularly pertinent when the ‘voices’ that are being excluded are already so often marginalized.

2.3 Recordings as a ‘performance’

According to David Huron, “psychologists and musicians are grappling with how to characterize auditory “things” that continue to exist for an appreciable period and that yet may evolve with respect to pitch, timbre, or various other parameters [13]”¹¹. Small proposes that “[t]he fundamental nature and meaning of music lie not in objects, not

⁸ (pg. 271)

⁹ (pg. 256)

¹⁰ (pg. 327)

¹¹ (pg. 362)

in musical works at all, but in action, in what people do [2]”¹². By perceiving music in this way, it is turned into an action that all can participate in, in whatever role. This co-creation, with the aim of creating a recorded artifact, means that at some point in this overarching action the musicking process becomes a product. Both process and product need to be deconstructed for any form of visible progression to be enacted.

Peter Hacker suggests that when we are focusing on an event it becomes easy to classify it as an object [14]¹³. The language around such events gives them an entity like ‘existence’, which over time allows the event to gain objective qualities. As Bentham defines, “an entity which, though by the grammatical form of the discourse employed in speaking about it, existence be ascribed, yet in truth and reality existence is not meant to be ascribed [15]”¹⁴. I propose that ‘music’ is considered as a sonic event rather than an object. We do not mean to ascribe the physical attributes of a material object to these sonic events (defined in this context as musicking), but the nature of the language surrounding them has meant that over time they have gained them, and thus are perceived as something tangible. Hacker reminds us that “[m]aterial objects do not take place and events do not exist [14]”. Musicking is a series of sonic events that take place; we have no visual evidence that it exists when considered in its ‘performance’ form. However, a relic can manifest itself as a physical object: such as a score or in this case a recording.

The presence of other participants within the musicking process, whether as performers, producers, sound recordists, or as listeners (both active and passive), allows this musicking to become an action that is a shared experience, and thus validating its existence through the symbiotic relationship that is created by having said shared experience. The validation of this experience is subject to the participants being able to communicate (whether verbally or physically). The act of music performance is non-verbal for its duration, meaning that it is the most emotionally direct medium with the art culture [2]¹⁵.

Andy Hamilton summarizes Victor Zuckerkandl’s

argument “that the natural phenomenon of time is not just an empty neutral vessel through which events pass but a real, active force, made available through music [16]”¹⁶. Music is an art of sound, not time, but it utilizes time as a space in which to exist. As it is unable to occupy a physical space, it occupies a temporal one. This is apposite when regarding music performed through the recorded medium because it does not necessarily require the temporal space being used by the specific performance to be contextualized by other events. This means that for the duration of the period that you are listening to a recorded artifact, you are occupying the same temporal space as those who have participated in it before, whether through listening or musicking; that version of the recording is confined within its temporal parameters. However, no ‘musicker’ can acknowledge the existence of the dyadic relationship if they are unable to communicate during the process. And yet, there is an opportunity for a different kind of musicking experience as a listener. As was stated by one of the participants in the Female Ear study: “*in a way that's the beauty of it because it's so abstracted that actually nobody can tell you how to listen. They can try, even you can try, but you will listen to what you're listening to and that's it. [...] but then also one can only speak for oneself, I suppose, because we don't know what it's like to be in someone else's ear [1]*”¹⁷. There is opportunity to experience something different on every listen, appreciating the complexity of the musical artifact that has been created.

2.4 De-gendering recorded ‘performance’

In developing the praxis of the Female Ear, one of the indicators for analyzing a mix was defined as *Complexity of the Musical Discourse* [1]¹⁸. This indicator is defined by how differently we appreciate the layers and colors of a track each time we listen to it. Taking each listen, each act of musicking, as a distinguished event enhances the concept that there is more to be found in a mix than that which is presented on the initial listen or experience.

This concept of *complexity* challenges the way that sound recordists are taught to mix, to produce, to co-create this recorded musicking. I propose that we

¹² (pg. 8)

¹³ (pg. 3)

¹⁴ (pg. 12)

¹⁵ (pg. 41)

¹⁶ (pg. 120)

¹⁷ (pg. 6)

¹⁸ (pg. 5)

question whether they have led to production styles that are inherently bland. This is not in any way to dismiss the craftsmanship that has gone into this work, but to acknowledge that there must be more than one set perspective or interpretation of how to create successful audio. This is particularly pertinent when analyzing the co-creation of choral musicking for recorded artifacts, as the style is so orientated towards making the technical musickers, the producers and sound recordists, seemingly invisible.

3 Exploration of Analytical Directions

3.1 Study Methods

The preliminary findings detailed in this paper are attached to a wider doctoral thesis: designed to investigate the intersections between technology, gender, and choral performance. These findings include analysis of the study's completed interviews to date, which are drawn from a pool of equally balanced male and female conductors, singers, administrators, music producers and sound recordists, all of whom have a minimum of five years of professional experience in their respective field. This paper pays particular attention to the contributions made by music producers and sound recordists.

The interview guide was designed to be applicable to all primary participants in the choral musicking that happens within liturgical and concert settings, also described as 'live' settings. Specific attention was paid to the inclusion and visibility of music producers and sound recordists, ensuring that their voices, which so often can be silenced, are equally represented. Notable scrutiny has been applied to compromises achieved between performer and engineer as to placement of microphones and other equipment, so that a balance can be found between the quality of the sound capture and the unease felt by performers with the presence of the 'invisible ear'.

The research forming my doctorate has been divided into three main questions, each of which have been designed to analyze the relationships between choral music, gender, and technology through an intersectional sense and a multidisciplinary perspective. Interest is paid to the participant's experiences of situations that have typically been gendered, and how the presence of technology in that space may influence and change that.

These questions are:

- How does the streaming of religious services influence music choices that are made in choirs?
- How has a technologically mediated society accelerated gender diversity in 'traditional' choral environments?
- How is the hegemony of the male ear influencing recording standards in choral music productions?

The interview guide for the semi-directed interviews concern topics of the participant's professional field; current choral endeavors; repertoire; their experiences with streaming technologies as a performer; the gender diversity present in their current working environments; experiences in audio workplaces with a particular relation to gender; and their perception of the potential for impact from the male, female, and queer gazes in visual and audio streams. These questions are designed to provoke thought about professional situations, whether in relation to experiences with streaming technologies, or to situations where the participant feels that the gender they identify as might have impacted the way in which a scenario made them feel. There are also questions that are designed to interrogate the participant's opinions on the way in which recordings represent those who identify as different genders.

3.2 Participants

Twenty-three participants have taken part in interviews: eleven of whom identify as cisgender women, twelve as cisgender men, and none as non-binary, or as transgender. All participants are currently working professionals (i.e., their work acts as their main financial revenue) in the Anglican choral scene, and all are musicians, administrators, managers, sound recordists, or music producers. Of the twenty-three interviews conducted so far, two have been with sound recordists, and two have been with music producers. Three of these four participants identify as male (two sound recordists and one music producer) and the other as female (a music producer).

The data collected in these interviews is coded through two theoretical frameworks, which are based on Born's Mediation Theory [5] and Sue et al.'s Microaggression Theory [8], providing a theoretical basis that informs the inductive coding used to generate the preliminary findings.

3.3 Preliminary findings

The female music producer spoke about her experience being treated as a second-class citizen within the industry, stating that she *“was told that I couldn't be a producer because I was a woman”*. When asked further about this, she stated that despite this negative experience, ‘being a woman’ in her profession *“eliminates a certain element of competition, which with certain male artists can become a bit of a power game between the producer and the musician as to who is in charge”*. When speaking to one of the male sound recordists, he mentioned that *“having someone who you learn from and continue to learn from is invaluable.”* When pressed further about his experiences with his role models, he stated that *“it doesn't necessarily matter to me what gender they are, but yes, they do tend to be the same gender as me”*. This reinforces the gender gap within the industry, and whilst this shows willingness to work with producers and sound recordists that who identify with differing genders.

When asked about the ways in which barriers can be broken down in a workplace, one of the engineers spoke to the importance of identifying everyone by name: *“the most obvious one is just introducing everyone at the start of the day, like whoever knows everyone or knows most people just to say this is this person and they are doing this”*. By taking this time to individually name and highlighting their role within the musicking process, it should allow individuals to cultivate an identity led by their skill and self-led way of personal presentation. This tactic also helps reinstate the import of roles that may be perceived to be ‘invisible’ in the musicking.

There were also discussions of experiences with the gendering of performers within post-production: *“when we mix audio, I do it with the aim of making the music sound as good as it possibly can. So sometimes the sopranos will have to come down a bit, you know, or the other way around. But that's purely musical. I don't think there's any correlation to gender and kind of perception of gender within that”*. This comment suggests that the identity of the artifact or ‘music’ itself takes precedence over the identities of anyone involved in the musicking process. However, it could be questioned as to how the ‘music’ can be prioritized over the self-identification of those who have been involved in the co-creation, as it could be argued that without

acknowledging the specific identities of those involved in the musicking process, the ‘music’ itself loses its individualized characteristic.

And yet, the idea of serving the ‘music’ is a repetitive theme in how engineers see their role within the process. Another of the male engineers spoke of his interpretation: *“my role is to make the best sounding record/recording possible. Putting the microphones in the right place and getting the right balance of microphones to try and get the choir, or whatever group it is, sounding as good as they can on the recording. That's what it comes down to, in a way that suits the music in your opinion”*. The objectification of the music here, rather than the acknowledgement of its temporal occupation, allows it to hold a significance that apparently transcends all other involvement. By objectifying the ‘music’, and placing it on a pedestal, the risk of marginalizing those who serve the object is heightened, and this risk is only heightened further when those involved are regularly marginalized in their everyday life.

African American live engineer-scholar Witney Slaten describes in his thesis his experiences as a black person being asked to wear black and be sonically and physically transparent as a live sound engineer, contradicting his experiences growing up where he was taught to avoid being invisible as a person of color [17]¹⁹. By asking musickers, particularly those who are repeatedly marginalized in day-to-day society, to become invisible in the musicking process reinforces stereotypes and forms of othering that they have spent time working to personally combat.

4 Future Directions

Using key demographics, such as the participant's gender, and putting them into a matrix the results of the inductive coding bases, I hope to demonstrate where in these choral environments these microaggressions and discrimination are occurring, and how they shape and perpetuate the existence of ‘gendered spaces’. These key demographics are collected in a pre-interview questionnaire.

My continued analysis of the interviews will be utilized in my doctoral thesis. I will continue to inductively code the data, ensuring the voices of those who have participated in the interviews to ultimately develop a new theoretical framework.

¹⁹ (pg. 75–76)

This inductive coding, along with the two deductive frameworks, will aid in identifying gendered techniques and artistic approaches of sound engineering and music productions in the data.

Later, an anonymous questionnaire will be available through email and social media to all who are considered primary participants in choral music-making (axis 1 in Born's framework [5]). The open-ended questions will be used to capture the experience of the participant within their specific ensemble or field. The close-ended questions will use a five-point Likert scale from 'Strongly disagree' to 'Strongly agree' and will be designed to capture data of musicians, recording engineers, and administrators across the country.

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