

Trans*Vocal: Documenting Gender Subjectivity Through
Changing Vocality

by

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Abstract

Through my subjectivity as a non-binary, trans* vocalist, I am acutely aware of the sounds I have been enculturated to produce. Drawing on theories of vocality (Eidsheim 2019; Azul 2015), transition (Constansis 2013; Constansis and Foteinou 2017), and improvisation (Caines 2021), I analyze the relationship between voice and perceptions of gender by exploring the concept of transition as it is performed by my voice during the first seven and a half months of testosterone treatment (mid-June 2021 - January 2022). I contextualize my experience within historical and medical notions of gender and examine it through autoethnographic methods and creating an experimental music video, *Trans*Vocal*. I open up and make myself vulnerable in the hope that greater knowledge of trans* experience will bring appreciation for “non-normal” vocalizations. I aim to problematize our current language surrounding gender, voice, and transition and depict transition as a natural part of anyone’s vocal journey.

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Chapter 1: Introduction

Experimental vocalist Phil Minton argues “that we’ve been ‘duped,’ cheated out of our full vocal potential by a culture that” polices the voice (quoted in Tonelli 2016, 1). Vocal “policing,” explains musicologist and vocalist Chris Tonelli, occurs when you are told that you are “unable” to sing or when sounds produced by the voice are perceived as sounding different than the way that the body is coded (6). As a non-binary vocalist trained in multiple genres, I am acutely aware of the sounds I have been enculturated to produce. In this research-creation thesis I analyze the relationship between voice and perceptions of gender by exploring the concept of transition as it is performed by my voice during testosterone treatment over a seven and a half-month period. As an expression of subjectivity and an area of signification, *Trans*Vocal* considers the “grain of the voice” (Barthes [1981] 2009), as it pertains to a medically transitioning voice. I argue that the gendered expectations that are placed upon the voice police how a voice is expected to sound and cheat the vocalizer out of other options for gender expression that are new, unique, and potentially do not conform to our society’s notion of “good” or “normal” sounding.

I recorded my vocal changes from mid-June 2021 to January 2022, as well as various other experiences of transition, and translated my personal experiences of vocal change and gender performativity through the creation of an experimental music video.¹ Personal, embodied studies of vocal transition are important because “trans people’s cultural histories are all too often subject to erasure or appropriation (through theoretical abstraction) by cis academics who have had no direct involvement in them” (Pearce and Lohman 2018). In this research-creation thesis, I occupy many roles simultaneously, including autoethnographer, composer,

¹ Access to a version of *Trans*Vocal* that accompanies this thesis can be found at: <https://youtu.be/RrvTRsIKICY>.

videographer, documentarian, recording engineer, performer, and advocate. I draw on my previous experience making ethnographic videos during my undergraduate degree from 2016 to 2020, developed through coursework and as a research assistant for video ethnographer and ciné-ethnomusicologist Michael B. MacDonald at MacEwan University. My initial experience of discovering creative improvisation, and subsequent explorations working with experimental vocalists Kathy Kennedy, Gabriel Dharmoo, and Christine Duncan, have also informed my thinking. Through this project, I problematize society's current language surrounding gender, voice, and transition and depict transition as a natural part of anyone's vocal journey.

My vocal journey began at the age of four and included choir, musical theatre, and classical singing lessons. I continued with these activities until graduating from high school in 2014, at the age of 17. By this time, I had become disenchanted with classical music, due to multiple factors that are outside the scope of this thesis. While studying abroad in Taiwan from 2014 to 2015, I made many friends from other countries, and we were able to connect through music, whether by going to weekly saxophone class together or playing songs on a beach. I realized that music was an important way that I was able to connect with others even beyond language barriers. I was excited to further explore this connection. After some deliberation, I decided to attend MacEwan University in 2016 for contemporary voice training in order to learn techniques that apply to genres other than classical music, including jazz and popular music.

My first two years in the program were frustrating as I struggled against my 12 years of classical training and feeling like I "sounded wrong". Sometimes, in order to learn new techniques, it is necessary to break old habits. This does not mean my classical technique is useless; rather, adding contemporary training made me a more flexible singer and I am now able to use a larger variety of techniques to colour the sound in different ways. Because of this

transition in my vocal training, however, I initially attributed my sense of “sounding wrong” to the timbral differences found across classical, jazz, and popular music. By the third year of the program, I had the technical ability to be more decisive with my timbral choices. Loosely stated, classical singers aim for a full, rounded tone with a natural, unforced vibrato that rings through a concert hall, while jazz and other contemporary singers, who regularly use microphones, make use of the various grains of their voices from nasal timbres to throaty sounds. This did help with my vocal identity crisis, but I started noticing that during improvisations I would regularly make pitch choices that were below my range limit. Further, I began to experience extreme vocal fatigue from consistently speaking and singing at the bottom of my range. I attempted to adjust this but was confronted once again with the experience of “sounding wrong”.

It was not until the summer before my fourth year of the program in 2019, that I came to some deeper understandings of my transness. It was not only genre that made my voice sound wrong to my ears, but vocal gender dysphoria. Catherine Schaeff defines gender dysphoria as a “misalignment between an individual’s gender and their body [that] can cause distress or dysphoria leading to extreme dissatisfaction or discomfort with one’s body directly and indirectly, due to how one’s body is perceived and gendered by other people” (2022, 2037). For me, “sounding wrong” was not simply a matter of aesthetics, but of my core identity. Until this point, I had mistakenly assumed that medical transition was only for binary transgender individuals. Once I encountered other non-binary, trans* individuals on YouTube who wanted to transition in some form or another, things began to click. I decided not to pursue medical transition that school year, as I was finishing up a performance program and I did not want to run into conflicts between performing and bodily changes. After two years of preparation, weighing

options for how to transition and protect my voice, I finally started testosterone on June 11, 2021.

Transition, as a term referencing a specific trans* experience, has a complicated history that leads to misunderstandings about who may want to transition and what that transition can look or sound like. Critical theorist Julian Carter discusses how *transition* originally was used to describe the process of going back and forth between various doctors and judges in order to get “sex reassignment” (2014, 235). While this path may be desired, the journey is littered with expert gatekeepers and thus, heavily weighs on those that lack the resources “and those whose gender expression is not formed in relation to dominant white European American conventions” (235). Carter states that *transition* is regularly used to refer to the various ways trans* individuals “move across socially defined boundaries away from an unchosen gender category” (235). The term only began to be widely used in the mid-1990s and needs to be distinguished from “sex change” which refers to an event (235). Rather than a specific event, *transition* refers to a duration that “conjoins expectations of ongoing, indeterminate process with expectations of eventual arrival and implies some shift in bodily self-presentation that is both central to, and inadequate to describe, the interpersonal/psychic experience of altering one’s social gender” (236). *Transition* can be used to describe the various moments of gender euphoria and dysphoria as well as the “little gestures of protest and presence” that accompany the shift away from an assigned category (236). The hopefulness in this term lies in its expansive possibilities to move away from its medicalized definitions to a definition that does not put limits on an individual’s ability to change.

Davies and Goldberg write that the primary goal of speech therapy for trans* individuals is to “decrease discrepancy between speech and the client’s sense of self” (2006b, 21).

Ultimately, for me, this was also a goal of going on testosterone and undertaking this research-creation project. Through a process of singing, changing, and creating, I hoped to come to a place where I could feel comfortable with the self that I was expressing to others. Despite their binary-focused discussion, I think that Davies and Goldberg are correct in stating that a “good fit” for the individual is far more important than adhering to some external stereotype of masculinity or femininity (2006b, 6). My research focuses on a relatively early stage of my vocal transition, the first seven and a half months, during which I went through long waiting periods with cycles of minor changes. At the time of writing, I have been on testosterone for just over a year and while my voice is still in a process of change, I am sounding more “right” to me every day.

I began this research by asking *how does gender sound?* and *how does one hear gender?* To answer these questions, I turned to transgender theory and the burgeoning field of vocality within music studies. Even when seemingly presenting as a masculine individual, I have noticed that simply the sound of my voice can immediately change a person’s perception of my gender to denote femininity. Such events have prompted me to question whether there is something to be found in the voice, or in an individual’s listening practices, that leads to these misguided assumptions. Pitch alone cannot be used as an absolute defining factor in gender attribution due to the fact that people are able to correctly attribute assigned gender roles in both higher male-sounding voices and lower female-sounding voices (Eidsheim 2019, 102). In contrast to studies of vocal transition that focus primarily on pitch or fundamental frequency (f_0), *Trans*Vocal* focuses on the broad category of vocal timbre, described by Nina Sun Eidsheim as encompassing everything besides pitch and loudness (6), in order to determine what factors may play a role in the expression of my gender subjectivity and why. Additionally, I explore the related question of

the impact of the transitioning voice on a singer's sense of gender expression. As a non-binary vocalist, I am interested in the ways a person may express their potentially fluctuating gender, musically, through a transitioning voice.

I aim to problematize societal practices of gendering the voice and expand people's understanding of what transition can look and sound like, with a particular focus on the transitioning AFAB (assigned female at birth) voice. In David Azul's paper on transmasculine vocality, they describes transmasculine people as individuals "who were assigned 'female' at birth and who wish to masculinize or de-feminize their speech" (2015, 39). While I do not feel connected to this label nor do I feel that this is the only way to define "transmasculine," I follow Azul to the extent that the goal of my transition with testosterone is to defeminize my voice. I want to clarify that the aim is not to sound more masculine but rather to sound more like me, Meg. Thus, this project also aims to deconstruct and reimagine what gender can sound like.

Additionally, I would like to note that even without this thesis I intended to undergo testosterone treatment. If anything, I delayed the initial start date of treatment in order to accommodate the research component. My hormone treatment plan considered the work of Dr. Alexandros N. Constansis, who compares different hormone dosages and administration among transitioning vocalists (Constansis and Foteinou 2017). Constansis recommends using a low dose of testosterone in its gel form to protect vocal ability, as this transdermal application allows for consistent levels throughout the day and the lower dosage allows for a gradual start to transition (159). This gradual and lower dosage allows the vocal folds more time to adapt to the new hormone levels and change over time. I offer an analogy from my experience as a dancer: microdosing testosterone is akin to slowly stretching your leg muscles when learning to do the splits as opposed to jumping directly into the position and risking an injury.

It is important to recognize that there are many people who identify as gender nonconforming or non-binary and there is a large degree of variation in the vocal changes that are, or are not, desired or taken (Davies, Papp, and Antoni 2015, 120). While much of this thesis references my experience, my decision, as a non-binary, trans* individual, to undergo transition with my voice with the aid of testosterone is not meant to represent the desires of every AFAB, non-binary individual. Further, I highlight my use of *trans** in this thesis as an all-encompassing term that refers to any individual who identifies with the label transgender. Although transgender has been used as an umbrella term to refer to a wide range of gender variation since the early 1990s, it is often understood as only referencing binary notions of transness (Tompkins 2014, 27). In a blog, Sevan Bussell promotes the use of *trans**: “The asterisk came from internet search structure. When you add an asterisk to the end of a search term, you’re telling your computer to search for whatever you typed, plus any characters after” (2012). I use this term to draw further attention to the gender variance experienced within the label transgender.

1.1 Methodology

My research project falls within the scope of research-creation. Stévanice and LaCasse define research-creation methodology as an interdisciplinary approach that combines “research methods and creative practices within a dynamic frame of causal interaction (that is, each having a direct influence on the other), and leading to both scholarly and artifactual productions (be they artistic or otherwise)” (2018, 152). In an expanded definition, Natalie Loveless argues that a research-creational approach “insists on a multiplicity of responsive practices structured by situated (emergent, erotic, driven) accountability” (2019, 29; see also 2020). Research-creation is therefore both a practical methodology and an ethical stance towards artistic practice as knowledge production.

I used several ethnographic approaches to data collection in both writing this thesis and creating my experimental music video. Online, virtual, ethnographic methods (Boellstorff et al. 2012; Hjorth et al. 2017) were used to analyze various trans* media and collect scholarly articles about trans* individuals, vocality, and gender performativity. Through reflexive journaling (Meyer and Willis 2019; Jenssen 2009) I analyzed my pre-testosterone voice. For example, I reflected upon experiences in my life when I noticed that my voice was being gendered in some fashion. I also used this method of journaling to reflect upon how I experienced gender as sounding, or not sounding, in my voice during transition on testosterone. I address these data in more detail in chapter 3. My journaling was informed by auto-ethnographic practices (de Bruin 2017; Denzin 2013; Spry 2016) and illustrates my experience of how this transition has changed both the materiality and perceptions of my voice.

I also used auto-ethnographic methods during the research-creation portion of *Trans*Vocal*. During this process, I articulated the changes that I noticed in my voice via audiovisual recordings. These recordings took place bi-weekly and were around an hour to an hour and a half in length. I used an iPhone and an external microphone to record the various changes that were occurring in my voice and body. In these recordings, I would warmup and then complete a range, timbre, and technical skill assessment in the three resonance areas of chest, mixed, and head voice. Then I would sing several songs, which included one song that was repeated every session, to hear the voice in a specific musical context and hear how that might change over time. Finally, I would freely improvise, to express my experience of the voice on that day. The technical skill assessment allowed me to examine any agility and strength changes in the various resonance areas of my voice as well as notice any timbral differences that were occurring. The range assessment aided me in assessing the limits of my voice and observing

where my voice was sounding comfortably at that moment in transition. Finally, I performed composed songs and vocal improvisations during each assessment to allow for further analysis of vocal timbre and other vocal aspects (such as phrasing, lilt, and articulation) within the context of a musical performance. Songs set limits to the voice which, while allowing easy comparisons to other recordings, limit the personalized choices that I am able to make in regard to pitch and textural sounds. Therefore, I used creative improvisation as a technique for exploring gendered and potentially non-gendered sounding.

Through the theoretical lens of critical improvisation studies (CIS) (Caines and Heble 2015; Caines 2021), I explore improvisation as a methodology for negotiating subjectivity through creation and exploration of gender in trans* bodies (Siddall and Waterman 2016). I utilize creative improvisation as a reparative method in which the voice is allowed to sound without constraints, where genre-based notions of pitch matching and “appropriate” or “good” sound quality are not required or expected. Creative improvisation can be defined as “an umbrella term for a range of contemporary improvisational practices that play across (inside/outside) traditional Western musical techniques (of genre, style, form, pitch, rhythm, timbre, and instrumental technique)” (Waterman 2008, 2). For the purposes of this thesis, I use the terms “creative improvisation” and “vocal improvisation” to stand in for a series of improvisational approaches that arose out of jazz and experimental music in the 1960s through pioneering vocal improvisers like Jeanne Lee, Phil Minton, and Maggie Nicols, and have been expanded upon more recently by singers such as Christine Duncan, David Moss, and Chris Tonelli (Tonelli 2020). Such improvisers emphasize process over product, taking risks and accepting failure, embracing every possible vocal sound. I understand this to be a reparative practice. Eve Kosofsky Sedgwick (2003) describes reparative readings as approaching the object

of study with care by allowing yourself to be surprised, surrendering the knowing self, and taking time to recognize your mistakes. The crux of my argument for using improvisation as a methodology for exploring differing vocal norms is that it can provide a non-gendered space for sounding, but this claim needs to be considered within the gendered histories of both singing and creative improvisation. The history of creative improvisation is not exempt from “masculinist tendencies, heterosexual expectations, or immune to gender anxieties” (Smith 2014, 274). Regardless of its experimental nature, within group contexts, “creative improvisation is nevertheless a field dominated by men, and in this sense, it resembles the most regulated of Western musical practices” (Waterman 2008, 2). That being said, through my *individual* practice of vocal improvisation, I welcome reparative performances where all vocal sounds are heard as *valuable*. Instead of controlling, judging, and limiting my voice in an attempt to force a specific outcome, I allow myself to be surprised by what my transitioning voice has to offer.

Reviewing my weekly recordings, I reflected on the changes that I was hearing, seeing, and otherwise experiencing, and thought about the various ways in which I could share my experience with others through the medium of film. In addition to the assessments, in the videos I commented on different felt aspects of my vocal change as well as the numerous bodily changes associated with testosterone treatment. I included these experiences for two reasons. The first reason is that the body is the echo chamber for the voice; therefore, any changes being experienced in the body will also affect the voice (Malde, Zeller, and Allen 2013). The second reason follows an argument made by Eidsheim that “not only aurality but also tactile, spatial, physical, material, and vibrational sensations are at the core of all music” (2015, 8). Thus, the experience of my bodily changes impacts both my improvisations, and my reception of the sounds that I am producing.

Finally, I critically assessed the video footage for moments and feelings that I understood as being integral to my experience of transition. Afterwards, I considered how these moments and feelings could best be represented through metaphors and film techniques. From there, I assembled footage and sound bites in the form of a seven-minute experimental music video. For the editing and colouration of this music video, I used Davinci Resolve 15. Editing included the selection, cutting, trimming, layering, and colouration of clips. Following work in the field of ciné-ethnomusicology (Harbert 2018; Richardson 2019; MacDonald 2020), which uses a cinematic approach to theorizing about music that I discuss further in chapter 4 (MacDonald 2019a, 139), I consider the video editing process to be part of my analysis of my vocal transition. This method required me to pull out parts of my transition that I deemed most important and consider the best ways to represent my transition in the film. *Trans*Vocal* is thus more than a creative artifact, it serves as a form of analysis that is complementary to my autoethnographic writing.

1.2 Chapter Outline

This thesis is a highly personal document that represents the understandings that I have come to as a non-binary, trans* vocalist about gendered sounding and transition in general. I detail a number of harmful generalizations and stereotypes that have been applied to trans* individuals and their vocalizations by society at large and internalized by me. I provide context to the situation from which I sing, provide an autoethnography of my first seven and a half months on testosterone (mid-June 2021 through January 2022), and describe how the transitional experiences discussed in chapter 2 were translated and re-expressed in my experimental music video. I open up my experiences and make myself vulnerable in the hope that this thesis will

expand knowledge of trans* experience and bring about greater appreciation for potentially “non-normal” vocalizations.

Chapter 2 theorizes the voice in transition and contextualizes the multiple narratives that set the stage from which I, and many other trans* vocalists, sing. The chapter is broken into four sections: *vocality*, *medical context*, *vocal pedagogy*, and *narratives surrounding transition*. Grounded in theories of *vocality*, I begin with a discussion of the acousmatic voice and the assumption that the voice is a site of identity expression. Drawing on the work of Eidsheim (2019) and Azul (2015), I problematize the notion that the listener is able to glean incontrovertible knowledge of the vocalizer through listening. I argue that unless given explicit information by the vocalizer, anything that listeners think they learn from the voice, is nothing more than an assumption. That being said, listeners can certainly make their best guess based on enculturated knowledge of vocalizations and their associated meanings. Unfortunately, it is this exact practice that leads to harmful occasions of misunderstanding and, for trans* individuals, misgendering. I close this section with an analysis of Eidsheim’s three correctives for assumptions made about the voice. The second section, *medical context*, details how the incorrect assumption that there are only two sexes has led to a variety of misunderstandings surrounding the possibilities for different vocal soundings across the gender spectrum. In this section I cover what physically happens in the body to produce the voice and describe how the vocal apparatus of AFAB individuals who receive testosterone later in life is a new sonic territory. The section on *vocal pedagogy* details how understandings based on misguided medical assumptions have perpetuated problematic gendered vocal practices. The gendered labels based on range ability used in the Western classical vocal tradition are scrutinized and the three commonly discussed resonance areas are explained. The section closes with descriptions of

gendered expectations of the voice. Finally, I conclude the chapter with an examination of how binary narratives are upheld within the trans* community, specifically in regard to narratives surrounding the voice and transition. I demonstrate how underrepresented other forms of trans* experience are, both in the language surrounding all aspects of transition and the types of care being offered to those desiring transition.

Chapter 3 provides an autoethnographic account of the vocal changes that I experienced under testosterone from mid-June 2021 through January 2022. I start by describing moments in my life where gender was imposed upon me, especially on my voice, and how that imposition continues to influence my interactions with, and experiences listening to, different areas of my voice. I detail how my recording sessions are set up and run, from the equipment utilized to the order and flow of a typical session. I discuss the changes that I discovered from discernable pitch differences to felt changes. Finally, I explain how my experiences of transition disrupt the assumptions and narratives described in chapter 2 and act as support for my closing argument that transition, and gender in the voice, should be listened to with more expansive ears.

Chapter 4 deals with my creation of an experimental music video that explores my experience of transition. I begin the chapter by discussing the history of ethnographic film and the emergent field of ciné-ethnomusicology. Popular film techniques developed and used by researchers to capture both musicians and the music being played are described, as they are foundational to the creation of my film. I clarify the techniques I used and/or expanded upon in *Trans*Vocal* and contextualize my reasons for not following other, standard techniques. I then give a brief history of how trans* individuals have been portrayed in New Queer Cinema, Trans Cinema, and YouTube videos. I discuss popular techniques and formats that have been utilized when depicting the transitions of trans* individuals through the medium of film. I close this

chapter with a discussion of the specific choices that I made in depicting my transition and describe what I learned in the process of creating the film.

I conclude this thesis by discussing lessons learned about gender attribution in the voice, how my listening practices have altered due to this research-creation project, and how my own understandings of transition have become more expansive. I call for a change in vocal pedagogy centered on gender neutral terminology and individualized vocal training that includes an acceptance of voices with varying abilities and different sonic potentials. I argue that creative improvisation's inclusion of non-gendered vocalisation provides non-binary and trans* individuals a potential place of care and safety for vocal exploration. Finally, I examine how changes to our listening practices can allow for an expanded gender consciousness that brings care to *all* voices, trans* or otherwise.

Chapter 2: The Situation from which I Sing

Following Azul (2015), Eidsheim (2019), and Peraino (2007), I argue that the voice operates as the aural component and primary reference in the determination of gender. In my experience, when an individual is dressed in a fashion that is societally received as one of the binary genders their speaking voice can immediately alter that perception. The voice has the ability to override any other gender referents such as clothing, stance, or body shape/parts. Judith Peraino states, in agreement with the work of Judith Butler, that the voice has been primarily used and received as a vehicle for language that “thoroughly indoctrinates us into ideologies of gender, race, and class” (2007, 62). While Peraino’s argument pertains to speech, the same principles can be applied to discussions of the singing voice. While the voice is typically understood as a carrier of self or identity (Schlichter 2011, 36), there is nothing innately male or female about it. Certainly, the body plays a role in the production of sound. However, the variations present in the biological makeup of bodies cannot be condensed into only two categories. It is through a process of enculturation and lived experience that listeners hear voices as denoting a specific gender. The situation from which I sing is complex, including multiple histories, theories, and social contexts that contribute to the act of gender attribution. In this chapter, I discuss theories of vocality, specifically as they intersect with theories of gender and identity. I provide context to how bodies are gendered within the medical system and consequently, within vocal pedagogy. I conclude by illuminating how discussions of the voice and transition within the trans* community serve to further impose an imagined binary experience.

In my research, I encountered a severe deficiency in literature on the singing voice of trans* individuals, particularly those whose identities lie outside the gender binary. Throughout this chapter, I thus refer to studies that pertain specifically to the transgender speaking voice in

addition to the few that I have found dealing with the transgender singing voice. While certainly not the same thing, the speaking voice is a definitive part of the singing voice that can be accessed during musical performance. In my view, the information given about the transitioning speaking voice is relevant to the changes being discovered in the singing voice, especially as they pertain to perceived vocal quality. Another difficulty is the language surrounding normative male and female bodily experiences in the literature; in most studies, the voice is generally considered in relation to the assumed sex of the individual. Societally, the notion that there are only two sexes, which translates into the belief that there are only two genders, still seems to be the benchmark for people's understanding of the voice. Over the course of this chapter, I unweave some of the misconceptions regarding the presumed "innate" or "normal" qualities of the voice so that we can begin to both challenge our current labeling and conceive of new ways of sounding.

2.1 Vocality

In *Human Voice: The Story of a Remarkable Talent*, sociologist Anna Karpf (2006) writes that, through the opening of mouths and the emission of sound, information pertaining to our physical and biological selves as well as our social status is leaked. The voice is assumed to be a site where one is able to both express identity and, in turn, have that identity heard by others. The listener assumes that the voice is imbued with the essence of a person, their identity, including their family history and personal life experiences. Both Azul (2015) and Eidsheim (2019) discuss how this assumption misleads listeners into believing that listening to the voice allows them access to intimate knowledge of the vocalizer. The "correct" attribution of that information, however, is dependent on the experiences of the listener. The telephone call and the associated acousmatic voice is the choice example used by many scholars to describe a scenario in which

the voice calls us to picture the person speaking, sometimes unconsciously and without a physical reference (Hall 1996; Eidsheim 2019; Azul 2015). In *The Race of Sound*, Eidsheim writes that it is through the sounding of one's voice and separation from the physical person that the listener is prompted to ask the acousmatic questions, "*Who is this? Who is speaking*" (2019, 1, emphasis in original). In asking these questions, the listener presumes that there is something to be discovered and that that something is possible to know (2). The listener expects that "through attentive and informed listening, [they] should be able to know a lot about the vocalizer," including their identity (2). Jacobs quotes Behlau and Ziemer stating that "the voice is one of the strongest extensions of our personality and if we sharpen our senses, we will recognize that this extension is deeper in its non-verbal dimension (pitch, loudness, voice quality etc.) than verbal (linguistic structure)" (2017, 372). In my experience, listeners expect that they will be able to know something about the vocalizer through even a basic level of listening. Azul refers to this act as using the voice as a "stethoscope" that can be listened in to and is capable of transmitting knowledge to others of what the vocalizer is, believes, and feels (2015, 77). Being truly "attentive and informed," in the context of gender attribution, however, would mean understanding that there are people with different gender identities and ways of expressing that gender that are impossible to know without asking. Then the potential response to the questions "*Who is this? Who is speaking?*" (Eidsheim 2019, 1) would be, "I do not know. I should ask!" or even further, "I should offer something of myself and see what they feel comfortable sharing." For example, to open up space for people to feel comfortable sharing their pronouns, you might offer your own without the expectation of a response.

In an effort to rid ourselves of inattentive and uninformed listening for gender, we must first understand how the voice has been codified in Western culture. Delph-Janiurek writes that

there are few consistent differences between female and male voices and thus, they must be “stylized and performed to a far greater degree than is commonly assumed” (1999, 141).

Eidsheim gives three assumptions about the voice and three correctives to be applied to these assumptions. Firstly, she analyses the assumption that the voice is singular and offers the corrective that the voice is collective (Eidsheim 2019, 9). There are many bodily organs (e.g., lungs, diaphragm, chest muscle, larynx, pharynx, and nasal passages), as well as circumstances that impact the actions of these organs (ranging from the amount of rest and water the body has received to the different techniques being practiced and employed by the vocalizer) involved in the production of sound (10). Secondly, she unpacks the assumption that the voice is innate, and offers the corrective that it is, in fact, cultural (9). Eidsheim explains that vocal sounds are enculturated by explaining that “what we conceive of as a single voice [...] is a manifestation of a given culture’s understanding of the vocalizer and [their] role within that culture” (11). Our culture teaches us how to sound male/female, masculine/feminine, as well as other classifications, including race and class. Thirdly, she discusses the common assumption that the vocalizer is the source of the voice (9). The corresponding corrective identifies the voice’s source as being the listener rather than the vocalizer (9). Eidsheim argues that “voices heard are ultimately identified, recognized, and named by listeners,” including the singer themselves as they listen to their own voice (12). This corrective is of particular interest to me as it removes the role of meaning-maker from the vocalizer, where it is typically understood to be, and places that role instead on the listener. Rather than the vocalizer innately performing identity through their voice, it is the listener that ascribes their own understandings onto the voice. It is important, as I discuss further below, to note that the vocalizer also plays the role of the listener through listening to their own voice. My role as a listener to my own voice plays a crucial role in the later

chapters of this thesis, as it is through this listening that I came to understand how my voice has been and can be gendered.

I assert that there are three ways in which the listener understands meaning to be instilled in the voice: 1) as innate to the vocalizer, 2) as a reflection of the vocalizer's experience, and 3) through the vocalizer's acquisition of style and technique. If the listener believes that the sounds produced by the voice are innate, then they believe that the vocalizer was born to make those sounds, which reflect *only* the instrument producing them. If the listener concludes that meaning is instilled through experience then they might, for example, assume that the vocalist sings sorrowfully because they have experienced difficulties in their life. Finally, the third way of imbuing meaning, through style and technique, gives some level of agency to the vocalizer or singer. Listening to the voice as if meaning was instilled through technique means giving the vocalizer credit for the choices made and the subsequent message(s) being delivered. If this is true, then it would be possible to learn different styles and techniques to sound in different ways, as demonstrated by actors adopting accents and by singers switching musical genres that require different qualities of vocalization such as a country twang or a Broadway belt. A possible critique of this third method of meaning making rests on the listener's perceived ability to hear whether the voice sounds "authentic" or not. This is not to say that these three ways of listening are mutually exclusive. It is possible for the listener to assume that they are hearing the vocalist's innate voice, experience, and learned styles and techniques, simultaneously.

Regardless of how the listener thinks they are hearing the sounds and the intentions of the vocalizer, Eidsheim (2019) argues that the listener imbues sounds with meaning through their own cultural context and lived experience. For example, in Western society, higher voices are commonly attributed "female"; someone with in-depth knowledge of trans* experience might

not make that assumption and would, instead, *always* clarify gender attribution with the vocalizer. Eidsheim includes vocalizers in the act of meaning-making by acknowledging them as both singers and listeners who take part in the production of sound as well as listening to that sound and responding to it (2019, 185). Just as the vocalizer is heard and interpreted by the listener, they also listen and react to themselves. This could simply be a person recognizing that they are speaking or singing, or actively listening to the sounds being produced and adjusting them; for example, to match the song style better or clarify pitches. In the case of a trans* person who is trying to sound a particular gender or non-gender with their voice, I assert that both the trans* individual and the listener are attempting to decode the complex gendering factors present in the situation. The uninformed listener hears what they assume to be the innate qualities of the trans* voice and then makes a subsequent decision about the gender of the individual based on those qualities. This process may be conscious or unconscious depending on what the listener knows about gender variance. Someone with a comprehensive knowledge of gender variance could conclude that they do not know the gender of the trans* individual based on voice alone. However, in my experience, people outside of the queer community will unconsciously make a quick decision regarding the gender of others leading to many cases of misgendering. The trans* individual might also listen to their voice for societal indicators of maleness or femaleness as well as to the reaction of the other person, which might cause them to adjust their voice and then listen again to that correction. For example, if someone were to refer to me with female pronouns I might, consciously or unconsciously, lower my voice in an attempt to defeminize it. While to a certain degree, a vocalizer can control how the listener hears their voice, ultimately it is through the context and lived experience of the listener that gender is attributed to the voice. Thus, the

acousmatic question of *Who is speaking?* leads to knowledge about the listener rather than the vocalizer (Eidsheim 2019, 180).

The voice is limited to embodying the qualities that are ascribed to it by the listener, but this is not to say that listeners and vocalizers have no impact on each other. As stated above, the trans* individual may react to the gendered assumption of the individual and adjust their voice to correct that assumption. The listener's context includes the very moment of audition, so that their interpretation may change as a result. The vocalizer can also endeavour to understand the gendered vocal conventions of their culture and make educated vocal decisions that best express their identity. This is why speech therapy exists as an option for trans* individuals: to decrease potential misgendering by adhering to gendered vocal conventions. However, even with speech therapy, the possibility of an individual being misgendered based on their voice remains. I suggest that, through examining and altering our own and others' listening practices, we may expand ideas of how gender can sound.

Sound waves exit the mouth, but once they arrive at the listener's ear they are ordered and codified through processes of perception (Azul 2015, 82). The various factors that make up the voice, from pitch to timbre, are assembled to form an identity that is assumed to be attached to that person. In fact, the identities attached to a vocalizer by listeners may be vastly different due to their diverse backgrounds and the resulting enculturated understandings of what makes someone sound masculine as opposed to feminine or "other". Azul writes that: "Once the voice has left the confines of the voice organ, its meanings are no longer controllable by the speaker's anatomy, identity, behavior, or intentions but are reconstructed by sensation, perception, and interpretation processes taking place in the listener, who may draw on conventional or unconventional understandings of gender" (2015, 83). Azul concludes that through the

examination of listening practices we can infer that what we are hearing when someone speaks or sings is not femininity or masculinity but rather different frequencies, speech patterns (both in rate and melody), and sound qualities that through our own internal context become attached to particular genders (83).

But this lack of understanding is not inevitable; by recognizing the limitations of our own listening practices, we can begin to enact care for the vocalizer. Through Eidsheim's practice of "the pause," a listener can begin to break down their own preconceived notions of how the voice should be labeled and recognize the multitude of naming possibilities (2019, 183). Eidsheim conceived of "the pause" as a remedy to listening practices that do not give time to consider the options present prior to the moment of labeling (183). Essentially, "the pause" is about taking a moment for "nonautomatic reflections about meaning" (183). Eidsheim explains that "the pause is not about listening for a greater degree of accuracy but about attending from a state that can help interrupt the way we usually listen" (183). By re-examining our language and listening practices surrounding the relationship between gender and voice, I believe that we can rid ourselves of our preconceptions of normality and participate in changing our meaning-making practices to allow every individual to sound themselves. To begin this reassessment, it is helpful to consider our reliance on outdated medical oversimplifications that support binary gender labeling.

2.2 Medical Context

This section offers the reader a brief account of the physical and material realities at play in the production of the voice. One of the first assumptions a listener can make is that masculinity or femininity is innate in the voice and thus indicative of the body and its biological sex (Zimman 2018, 4). This line of thinking follows the misconception that there are only two sexes with only

two different hormone levels and anatomy present in various types of bodies to yield different sounds. There is little basis, however, for dividing the voice into the binary sexes. There are more than just the two chromosomal options often brought up in discussions of sex and even within those two common pairings there can be hormonal variations that produce different vocal folds and thus, different sound production. Here, I explain the various parts of the anatomy that contribute to the production of the voice and how different kinds of puberty affect the voice and its vocal production.

Voice specialists often subscribe to the notion that the physical differences between male and female classified bodies result in a vocalizer's sex being determinable based on vocal production (Ko, Judd, and Blair 2006, 807; Azul 2015, 80). Differences are typically attributed to the presence of either XX or XY chromosomes. The idea is that designated female bodies (XX) will produce higher amounts of progesterone and estrogen resulting in a female-sounding voice, while designated male bodies (XY) will produce higher amounts of testosterone resulting in a male-sounding voice, due to the effects that these hormones have on the vocal apparatus (Abitbol and Abitbol [1995] 2014, 775). Of course, this is all under the assumption that humans can be uniformly reduced to two simple categories. Azul suggests that even a small online search using keywords such as "chromosomal abnormalities," will result in the discovery of several versions of sex chromosomes beyond the two commonly assigned categories (2015, 83). Since more than two combinations of chromosomal makeup can be found, people can be more than innately male or female. Therefore, there is no basis for describing the voice through binary terminology.

Regardless of their chromosomes, bodies can produce different levels of hormones that result in different types of sound production. For example, during the eighteenth-century in Italy,

castration was practiced on selected eight- or nine-year-old boys in order to maintain their young, high-pitched voices (Tråvén 2016, 2-3). The removal of the testes prior to puberty resulted in a lack of testosterone to provide the growth and thickening present in the vocal folds during “normative” male puberty (10-11). Such boys would be sent to a conservatory or a master to train to be a singer, known as a castrato and those who were successful musicians were prized for their high and powerful voices (8). In a different but related example, James Victor Scott (1925–2014) was a jazz singer born with a hormonal condition called Kallmann Syndrome that stopped his voice from changing during puberty (Eidsheim 2019, 93). Much like the castrati, this meant that Scott’s vocal folds never thickened because he did not experience hormonal changes during puberty; as a result, Scott’s vocal quality was often described as “feminine”. Throughout Scott’s career, audience members yelled things like, “That boy sounds like a grown woman” (94). The social criteria of what “male” voices sounded like did not match the sound of Jimmy Scott’s voice. It is easy to conclude that audience members were responding to a shift in pitch: his voice indicated femininity due to the higher range in which he sang. Eidsheim notes that, in an examination of mid-20th century vocalists, Scott’s voice could be located somewhere in the middle, with a range that was only slightly higher than the average tenor (2019, 105). Despite hitting notes up to seven or eight notes higher than Scott, for example, Smokey Robinson and Stevie Wonder are consistently attributed male (105). We can conclude that pitch is not the only factor contributing to the misattribution of gender in the voice. Scott subverted vocal gender norms through pairing his seemingly feminine sounding voice with his positionality as a heterosexual, cisgender man. My point is that even if you were to examine voices from the position of believing in a binary sex and thus, a binary vocal apparatus (which would be biologically incorrect), there is still no way to account for the variety of voices that occur due to

hormonal variations. Both Scott and castrati were biologically male, calling into question the assumption that the quality of a voice is innately male or female. In my view, it would be beneficial to approach every vocal situation as if it were entirely unique and particular to that individual.

Before further discussing how different kinds of puberty affect the vocal apparatus it is helpful to understand how the voice is generally produced amongst all bodies. Davies and Goldberg explain that the voice begins with the breathing muscles that provide energy by contracting, creating a vacuum that causes air to flow into the lungs. During exhalation, that air passes through the trachea and larynx, and then the muscles manage the rate at which the air is released (2006b, 44). More specifically, it is the diaphragm that contracts, pushing down on the contents of the abdominal cavity which, in turn, pushes out “on the muscles of the abdomen and down on the muscles of the pelvic floor” (Malde, Zeller, and Allen 2013, 56). The abdominal and pelvic floor muscles should all release and the sides of the diaphragm push the lowest rib outward. At this point, the muscles pulling the ribs up contract to bring them closer together, making the ribs elevate further. The lungs expand in all directions, being pulled down with the contraction of the diaphragm as well as horizontally and front to back by the thoracic cavity. “As the volume of the lungs increases, the air pressure inside them decreases” (56). Air rushes through the oral cavity and trachea and into the lungs equalizing the air pressure. These bodily actions form what is commonly known as inhalation. Singing generally occurs on the exhalation whereby the costal cartilage and pelvic floor recoil which disengages the rib elevators and diaphragm. As depicted in figure 1, the diaphragm dome rises pushing the lungs upward while the ribs descend to push the lungs in. The air pressure in the lungs increases as lung volume decreases, creating an imbalance with outside air pressure. In singing, this exhalation of

pressurized air is controlled by the ribs coming down and the release of the diaphragm. Air passes through the vocal folds on the way out of the body causing them to vibrate and produce sound. (56-57)

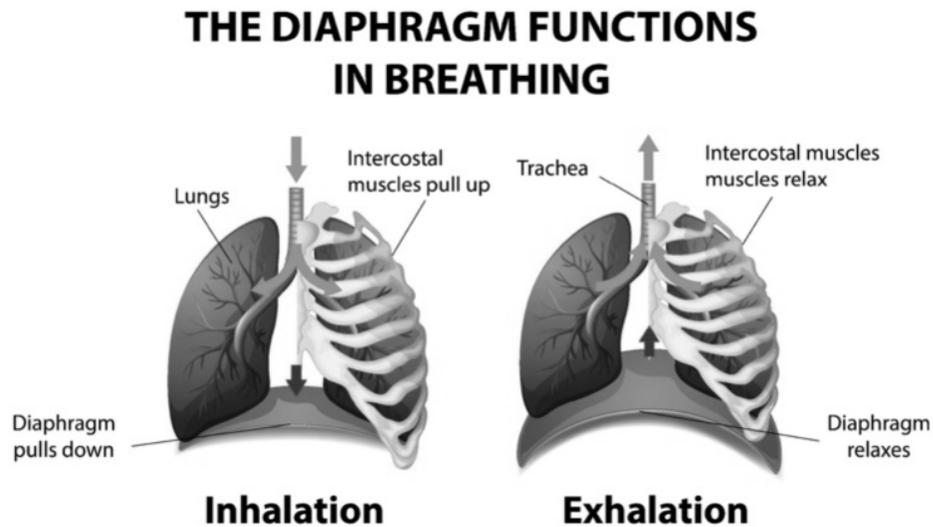


Figure 1 Diagram of how the diaphragm functions during breathing.

[Cartoon Vectors by Vecteezy](https://www.vecteezy.com/free-vector/cartoon)

The vocal folds (commonly called vocal cords) stretch from the front of the larynx, at the thyroid cartilage and attach at the back to the “small cartilages (arytenoids) that rotate and swivel to change the position and tension of the vocal folds” (Davies and Goldberg 2006b, 44). It is within the hard bone-like cartilage of the voice box that the vocal folds vibrate to produce the voice (44). This cartilage is shown in figure 2. Jacobs writes that “the voice is usually produced during expiration, with the passage of air through the glottis (a space located in the median region of the larynx, where the vocal folds are) and with the simultaneous vibration of the two vocal folds” (2017, 365). This “vibration” or resonating looks like the vocal folds clapping open and closed together in a sort of wave motion. When inhaling, the vocal folds pull back and allow

air to pass through and then when singing or speaking, they come together to be vibrated by the air being released from the lungs (Davies and Goldberg 2006b, 45).

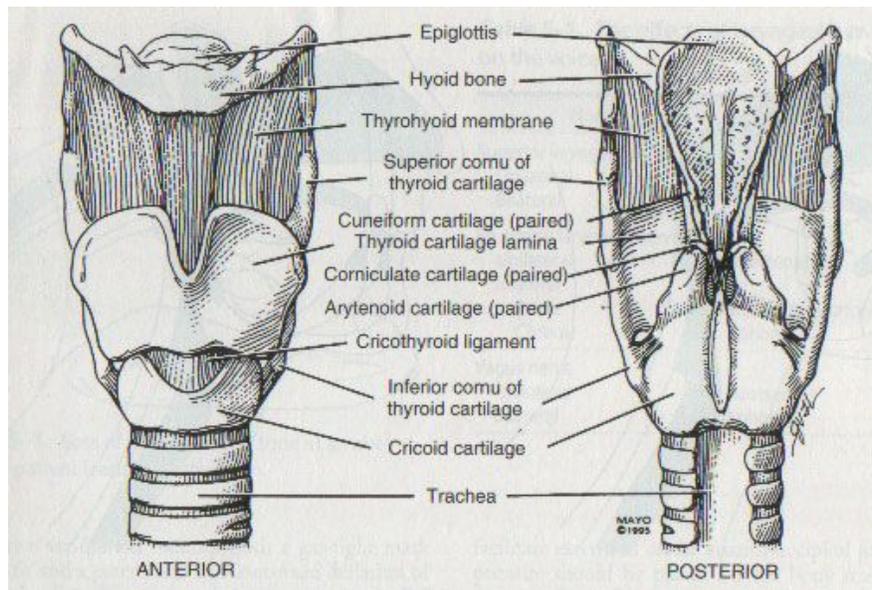


Figure 2 Anatomical diagram of anterior and posterior of the larynx. <https://pin.it/qDDe4Lf>

If all human bodies inhale, exhale, and produce vocal sounds the same way, why do voices sound different? The average speaking pitch is between 80-275 Hertz, meaning that the vocal folds typically vibrate at a rate of 80-275 times per second (Davies and Goldberg 2006b, 45). The fundamental frequency of a voice depends on the length, thickness, and rate of vibration. Just like the strings on a guitar, the longer and thinner the vocal folds are, and the more quickly they vibrate, the higher the resulting fundamental frequency will be, whereas shorter, thicker, and thus slower vibrating folds will produce a lower fundamental frequency (Jacobs 2017, 366). How these vocal folds are stretched between the cartilage is demonstrated by figure 3, in a view from above. The sounds formed by the vocal folds are resounded through the vocal tract and, upon opening the mouth, produce the voice. Amplification is required in order for the voice to be heard and this takes place primarily in the throat, mouth, and nose (Davies and

Goldberg 2006b, 45). When produced at the back of the throat the voice is only raw sound that is then transformed by “the muscles in the walls of the throat and mouth and also by the articulators – the tongue, lips, jaw and soft palate” (45). Jacobs explains that “the main resonators are the orofacial cavities (oral cavity, nasal cavity, paranasal sinuses), larynx, pharynx, trachea and the entire bronchial tree” (2017, 367). Like cello and double bass, which have large resonating cavities compared to violin and viola, larger vocal tracts (i.e., larger resonators) will also result in lower frequencies. It is through variations in length and mass of vocal folds as well as in the size of the resonating cavity that different tone colours are produced by the voice. These different timbres are in turn denoted by enculturated listeners as attributing gender to the voice (Azul 2015, 79).

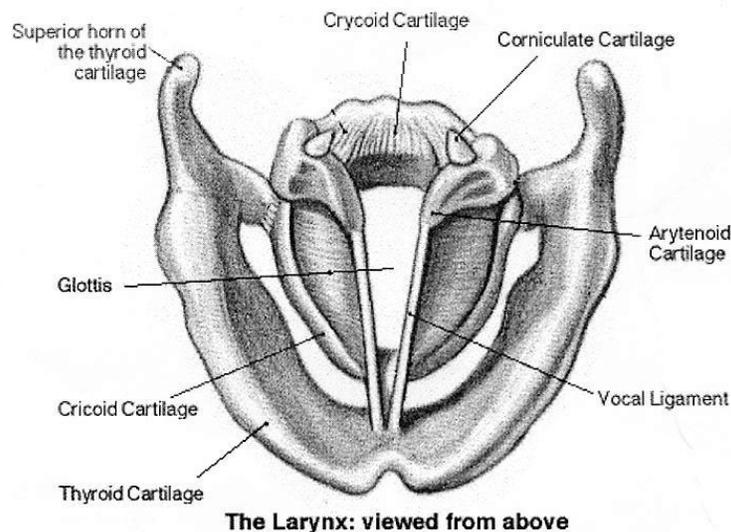


Figure 3 Anatomical diagram of larynx from above. Vocal ligaments = vocal folds. (Wise 2007, para. 25).

So, how do different kinds of puberty affect the voice? Theoretically, due to higher levels of testosterone, “male” bodies typically produce vocal folds that are more resistant to resonance because they are thicker, heavier, and longer than those of typical “female” bodies (Azul 2015,

79). During what is generally considered “male” puberty the vocal folds grow longer and thicker and the bones and cartilage in the vocal tract also grow (Davies and Goldberg 2006b, 46). This growth results in the ability to produce lower vocal tract resonance frequencies than their “female” counterparts, “contributing to the perception of a lower pitch than in females” (Xue et al. quoted in Azul 2015, 79). Between cismale and cisfemale vocal tracts, the cavity above the larynx where the production of the voice occurs, there is a 10 to 20 percent difference in length that results in acoustic differences, with AFAB people and children typically exhibiting resonances that are higher (Davies, Papp, and Antoni 2015, 123).

When AFAB individuals self-administer testosterone as adults, however, only the vocal folds grow thicker, as ossification of the cartilage has often already begun (Davies and Goldberg 2006b, 46). The cartilage that is part of the vocal apparatus will often have already started solidifying by the time an individual decides to start their second puberty.² Such individuals can likely expect less growth throughout the entire vocal apparatus than someone who produced or received enough testosterone during their first puberty. As both the vocal folds and vocal tract play a role in the production of sound, voices that receive testosterone after ossification has begun will likely not experience the same amount of growth throughout the vocal tract, resulting in different sound production from their counterparts that experience higher levels of testosterone at younger ages. As Davies and Goldberg state, voices have a great degree of variation, with some AFAB people having deeper voices and some AMAB (assigned male at birth) people having higher voices (2006b, 47). This is just like any other physical characteristic related to testosterone, including muscle mass, facial hair, and sex drive (47). They conclude “there is no universal norm for how women and men are expected to speak” (46-47). Despite this

² “Second puberty” is used within the trans* community to signify a puberty that occurs later in life, with the assistance of artificial hormones.

acknowledgement, vocal pedagogy still presents standardized practices, prioritizing normative sounding voices.

2.3 Vocal Pedagogy

Each person has particular vocal characteristics, attributed to their voice by listeners, that upon the voice's sounding allow that person to be recognized without visual confirmation. For example, you have likely heard a familiar voice outside of a room before the person entered and known exactly who was arriving. Despite the obvious individuality of each voice, the taxonomy used in vocal pedagogy emphasizes vocal similarities rather than unique characteristics. In this section, I discuss how vocal pedagogy perpetuates normative vocal narratives through a variety of labeling practices. I begin by giving a description of the various ranges and the attached gendered labels used in the Western classical vocal tradition, specifically as these labels pertain to choral music. I explain how the voice is further split into separate resonance areas, in order to give some clarity to various descriptions of the singing voice. Finally, I describe different timbral expectations that are imposed upon the trained vocalist.

In North America and Europe, many singers begin their formal training in choirs. This means that, as a trained vocalist, it is common to know the label that is assigned to your particular vocal range. These ranges are highly gendered. In Western classical vocal practice, choirs split male and female voices into sections.³ Compositions for solo voice are also written with a specific range and voice in mind and are advertised in such terms as “songs for soprano singers”. Even amongst these parts there is significant overlap in the ranges of assumed “male” and “female” voices. In regard to pitch, Davies and Goldberg explain that there is an overlap between AMAB and AFAB individuals' voices from 145-165 Hz, indicating that some level of

³ A third, nongendered, category of “treble” voices exists as well. Treble is applied to pre-pubescent voices and is typically the highest part.

neutrality is possible (2006b, 6). Eidsheim (2019, 102) provides a chart depicting the vocal ranges of the various sections that I have depicted as an image for easy viewing in figure 4.

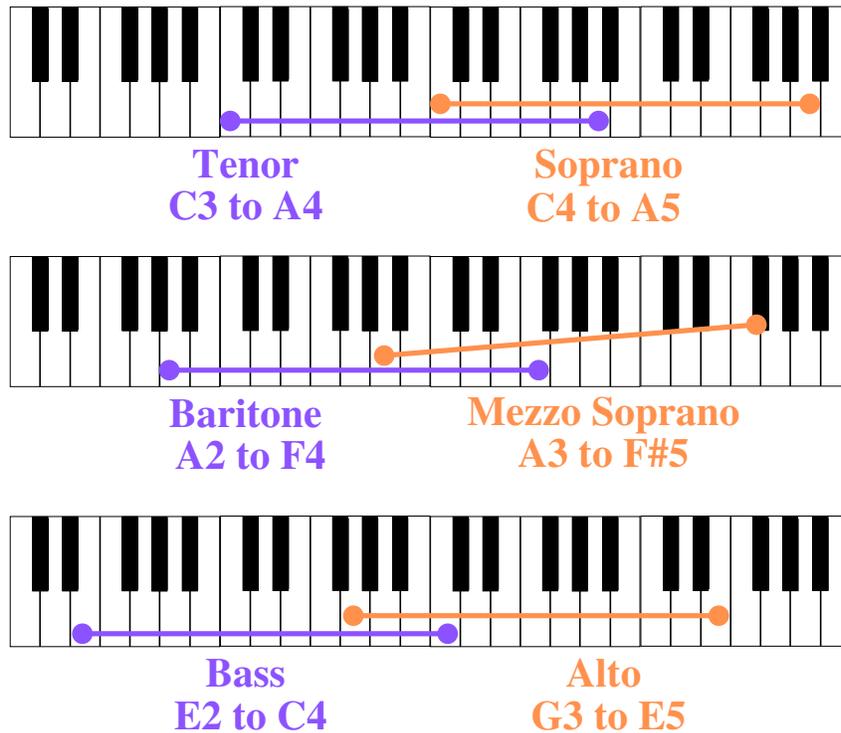


Figure 4 Image of piano keyboards depicting the vocal ranges commonly associated with Western classical music. The letters denote pitches, while the numbers denote octaves. C4 is “middle C” on a piano keyboard.

In figure 4, the left side on the keyboard depicts labels associated with typical "male" vocal ranges: Tenor (C3 to A4), Baritone (A2 to F4), and Bass (E2 to C4). The right side of the keyboard depicts "female" vocal ranges: Soprano (C4 to A5), Mezzo Soprano (A3 to F#5), and Alto (G3 to E5). The vocal ranges are listed from highest to lowest, with the top keyboard illustrating the highest voices and the bottom keyboard illustrating the lowest voices. However, these ranges do not encompass the entire scope of each individual singer's ability. A female vocalist may be able to sing all the notes from the bottom of the tenor range to the top of the

mezzo soprano range and will likely be classified as an alto. This happens for two reasons: the first is that they are female, and alto is the lowest female vocal identifier. They will likely not be put in the tenor section unless there is a specific need due to a lack of male tenors in the choir. The second reason is that there are often not enough “female” voices that can sing the lower parts. Regardless of the individual’s ability and/or desire to sing the higher parts, they will likely be placed in the alto section in order to create a balanced choral sound. While pitch is one of many contributing factors in the attribution of gender, however, timbre also plays a significant role.

Vocalists trained within the Western music tradition are subject to certain expectations of vocal quality and ability. This is, of course, somewhat dependent on the musical genre being sung, as different genres have different sound qualities and techniques that are stereotypically associated with them. For example, the classical voice tradition, in my experience, typically privileges sounds that are “pure,” meaning that the goal is generally to obtain a sound that is full and round, stripped of grain, raspiness, and wispieness. While there are certainly stylistic differences (e.g., rock may privilege vocal raspiness), there are also some fairly consistent expectations that apply to most genres within the Western tradition, including the ability to match pitch and sing in a key. Even genres, like jazz and blues, that play with tension through extensions and note bending do so in relation to singing clearly identifiable pitches. And as Tonelli explains, ““pure” pitches are the only types of vocalizations that qualify in some definitions as “singing”” (2020, 3). Beyond normative expectations of singing, vocalists make expressive use of different sound colours, or timbres.

Timbre is expressed through different vocal resonance areas known as chest, head, and mixed voice. These resonance areas produce different timbres based on the thickness of the vocal

folds at the moment of sound production (Malde, Zeller, and Allen 2013, 116). A vocalist may sing the same note, but have it sound very different based on the vocal resonance area they are using to produce it. Two resonance areas that singers often discuss are “chest voice” and “head voice” (Davies and Goldberg 2006b, 7). Both discourses are laden with gender associations.

Davies and Goldberg describe chest voice as a full and rich sound that is commonly associated with lower notes and reverberates through the chest cavity (7). It can also be perceived as sounding heavy, as the vocal folds thicken to produce the sounds associated with chest voice (Malde, Zeller, and Allen 2013, 116). For the most part I agree with this description with the caveat that different voices, like different instruments, will produce different kinds of sounds. However, it is fair to say that in comparison to the other resonance areas of the voice the chest voice is typically heard as sounding fuller, richer, and heavier. Davies and Goldberg go a step farther to say that some authors associate this type of voice with male speech (2006b, 7). This is likely due to the chest resonance’s association with the lower pitches that are often attributed to male voices (Malde, Zeller, and Allen 2013, 116).

Furthermore, there is some association between chest resonance and ideas of vocal power that further connect to narratives of male dominance, where power is associated with stereotypical conceptions of masculinity. For example, classic rock music, typically sung in chest voice, is often understood to promote ideas of masculinity and heteronormative behaviour through phallic movements such as hip thrusting and aggressive lyrical content and vocal techniques (like growling). When combined with other displays of power such as ear-splitting noise levels, rock music can signify a certain type of stereotypically aggressive masculinity. But such gendered analyses should be used with caution. Rock music has alternatively been used to subvert the binary gender roles and signify diverse sexualities, as demonstrated by the riot grrrl

movement of the 1990s and glam rock of the 1970s, troubling the associations between stereotypical masculinity, chest voice, and vocal power. Further, these associations make little sense as chest voice is a regular part of contemporary vocal training with much of current popular music being sung in some combination of chest and mixed voices (i.e., a mix of head and chest voice), regardless of gender. This trend includes such diverse artists as Harry Styles, Lady Gaga, Lizzo, and Ed Sheeran. This is not to say, however, that no contemporary music is sung in head voice. While certainly less common, you can hear powerful head voices in artists like Ariana Grande and Beyoncé.

When singing in head voice, the vocal folds are stretched thin to produce a high pitch range (Malde, Zeller, and Allen 2013, 116). The lengthening and thinning of the vocal folds also produce a sound quality that is often perceived as “light” and “pure” (117). Davies and Goldberg describe head voice as brighter and more forward, resonating in the facial cavities and sometimes associated with female speech (2006b, 7). Historical stereotypes that describe “proper” women as being “pure” and “weak” combined with the high pitch range often paired with this resonance area, may serve to explain why head voice is associated with female speech.

In contradiction to these stereotypes, different styles of soprano singing use head voice in ways that would not be considered weak, and even rival the power associated with chest voice. As described by vocal pedagogue Richard Miller, in the context of opera, the soprano voice can be separated into nine categories or Fach including soubrette, soubrette/coloratura, lyric, lirico spinto, spinto, young dramatic, dramatic, and cross-Fach (2000, 7). This list can be simplified to three categories that describe the weight and functioning of the instrument: light, lyric (medium), and dramatic (heavy) (Brailey 2021, 6). Light sopranos tend to have a bright timbre and agility that makes easy work of melismas, a flourish of notes sung on a single syllable (7); indeed,

coloratura sopranos can be fierce, as in the Queen of the Night's famous revenge aria in Wolfgang Amadeus Mozart's *Die Zauberflöte* (1791). Lyric sopranos tend to have a dramatic thrust to their voice producing rounder and warmer timbres with more sustaining power and fullness (7-8). It is important to note that the "heavier" a voice is, the more difficulties it will have in higher registers (8). Finally, the heavy and dramatic soprano voice is described as being less agile but having greater stamina and possessing significant power (8); the classic exemplar is the war-like Brünnhilde, in Richard Wagner's *Die Walküre* (1870). These descriptions of soprano voices trouble the stereotype of head voice as weak and the association of that weakness with "female" voices. Importantly, while the head and chest resonance areas have gendered associations, Davies and Goldberg insist there is no empirical evidence to suggest that increasing any resonance area results in gender attribution by the listener (2006b, 7).

Three less commonly discussed vocal resonance areas, which are also gendered, include glottal fry (commonly known as vocal fry), falsetto (or flute voice), and whistle tone. They involve the cricothyroid muscle (a small bi-lateral muscle found in the anterior compartment of the neck) and thyroarytenoid muscle (which forms the body of the vocal fold) (Malde, Zeller, and Allen 2013, 116). Disengaging the cricothyroid altogether results in the production of vocal fry (117). To produce vocal fry, air must pass through the vocal folds when they are thick and slack, creating a rattling sound (117; Chao and Bursten 2021, 44). While sometimes used in contemporary genres (think Katy Perry), vocal fry is typically avoided in classical singing (Malde, Zeller, and Allen 2013, 117). By contrast, when a singer rises in pitch there is a point at which the cricothyroid muscle, while withstanding the tug of the thyroarytenoid muscle, can no longer produce higher pitches (117). Falsetto in "men's" voices and flute in "women's" voices are thus marked by the complete release of the thyroarytenoid muscle and pitch is adjusted by the

cricothyroid muscle alone (117). While voices across the sexes are capable of producing this resonance area, it is most commonly discussed in regard to “men’s” voices. Falsetto can be heard in artists like Adam Levine, Freddie Mercury, Charlie Puth and Prince.

These two resonance areas are further plagued by gendered associations through what John Ohala (1994) terms the “frequency code”. Monica Chao and Julia Bursten explain that “a woman speaking with vocal fry will sound “like a man”; likewise, a man speaking in falsetto will sound “like a woman”” (2021, 45). A listener, so the argument goes, associates the resonance area with a frequency, and then associates that frequency with a gender (45).

The third resonance area, whistle tone, occurs in some voices when the cricothyroid muscles have realized their maximum contraction and a portion of the vocal folds are dampened as a result, to keep from vibrating (Malde, Zeller, and Allen 2013, 117). This dampening creates a shorter vibrating edge that allows for the production of extremely high pitches. Mariah Carey is famously known for utilizing this vocal resonance area. Once again, in a demonstration of gendered vocal pedagogy, Malde notes that not every voice can produce whistle tones, but they are more commonly heard in “women’s” voices, while in “men” they occur in countertenor voices, where they sound like a lighter falsetto (Malde, Zeller, and Allen 2013, 117).

In addition to the resonance areas discussed above, several vocal techniques are stereotypically gendered. For example, within both regular speech and singing, “breathiness” is often associated with the female voice (Becklund-Freidenberg 2002; Dacakis 2002; Oates and Dacakis 1997). This is possibly due to breathiness being associated with a lack of power and an emotionality that is commonly attributed to femininity (Marilyn Monroe singing *Happy Birthday* to John F. Kennedy is a famous example). This of course is not always true, as witnessed by powerhouse female singers across various genres, however *if* breathiness as emotionality is

perceived within the voice it will be stereotyped feminine. By shifting intonation upwards, increasing the variability in their frequency, and using more air in their speech to create a breathy tone, one could theoretically be attributed female by the sound of their voice (Hardy et al. 2020, 300.e12).

Hardy et al. further argue for gender attribution in the voice by stating that roughness (associated with vocal fry) is often indicative of masculine-sounding voices (300.e13). This serves to contribute to the gender attribution of genres, like rock, that employ this vocal timbre frequently. The contemporary fashion of “female” voices speaking and singing with vocal fry complicates this association, as it is clear this resonance area is not exclusively used by AMAB individuals. However, Chao and Bursten differentiate “male” and “female” vocal fry through their frequencies that result in different gender attribution (2021, 44). While general roughness may have some masculine associations, vocal fry alone is unreliable in the attribution of gender.

Finally, some studies show that rate of speech may have something to do with gender attribution, with the speech pattern of enculturated males being faster than enculturated females (Hardy et al. 2020, 300.e12). This might be one reason (among many others) that rap, with its rapid rhythmic lyrics, is predominantly coded as masculine. Of course, these examples do not cover all cases, but they can serve here to highlight how vocal qualities found in people in Western society are potentially associated in vocal pedagogy with *one* of the binary genders. Moreover, binary vocal expectations are not only present within vocal pedagogy but are perpetuated by the language used to discuss transition.

2.4 Narratives Surrounding Transition

Outside of potential alignment with the individual’s self-identified gender, narratives surrounding the vocal transitions of AFAB vocalists on testosterone typically lean towards the

negative. In this fourth section, I focus on discussions about being trans* and the act of transition. As people often restrict their thinking to binaries, I begin with a discussion of how “transition” is often understood both within the queer community and in society at large, specifically as this pertains to the exclusion of nonbinary individuals. I then provide a rationale for why a person might choose to go on testosterone and the assumptions that are made about that decision. Finally, I describe the vocal risks associated with going on testosterone. The literature discussed in this section often describes transitioning with the aid of a speech language pathologist. While my situation only includes testosterone, I think it is important to understand how the voice in transition is being discussed by different types of vocal professionals and how changes and options are being communicated to the trans* community.

As stated in the introduction, while “transgender” is an umbrella term used to refer to anyone who does not feel aligned with their assigned sex, it is often used to refer exclusively to binary transgender individuals: transmen or transwomen. This use of the term can again be attributed to the assumption that there are only two sexes, explained above. It follows that transition, as it is associated with transgender individuals, is also often understood as moving from one binary gender role to the other binary gender role. When a person expresses the desire to go on testosterone due to gender dysphoria, they are often understood as being a transman or, at the very least, transmasculine. This thinking is exhibited in the voice by the assumption that the goal of vocal change is to pass as one of the binary genders. Although “gender has been degeneralized,” there still seems to be an understanding throughout the trans* community that in order to “pass” one must undergo some sort of vocal transformation, whether that be through hormone therapy, vocal training, or both (Peraino 2007, 62). Davies and Goldberg note that “concern about others’ perceptions often relates to *passability* – being perceived by others as a

man or a woman” (2006b, 5). While there are many reasons for someone to desire to pass (from someone’s comfortability to an actual safety issue), this is not the intention behind my own transition. As I noted in the introduction, just as my intention by going on testosterone is not to masculinize my voice but rather to de-feminize it, my intention by going through this transitional experience with my voice is not to sound more like a man but to sound more like the Meg that I hear in my own head and to project that outward.

People are enculturated to speak in ways suited to their assigned genders, resulting in voices being coded in certain ways. Pitch is considered integral to gender attribution, with descriptions of vocal gender dysphoria within the trans* community often being articulated as the voice feeling too low or too high. However, as discussed above, pitch cannot be held fully responsible for the attribution of gender. Moments of misrecognition of a person’s sex and gender identity in relation to their voice are not uncommon (Hall 1996; Pausewang-Gelfer and Schofield 2000). In a discussion of work by Behlau, Azevedo and Pontes, Daiane Jacobs writes that listeners set socially determined and culturally based precedents whereby voices are split into two categories: normal and non-normal (2017, 370).

This false dichotomy is demonstrated in a study by Lal Zimman on the gay-sounding voices of female-to-male trans* people. Through measurements of fundamental frequency (f0), Zimman found that transmasculine voices are virtually indistinguishable from other male voices when it comes to pitch (2010, 2, 12). Yet trans* voices are still often heard as “other”. Zimman proposes that this “other” or “non-normal” sound is due to the voice’s inability to sound society’s notion of heterosexual masculinity. The perceived difference in vocal timbre of transmasculine people often results in them being heard as gay-sounding. Through this case study, Zimman discovers that phonetic styles that deviate from the listener’s heteronormative

understanding of “normal” are consequently grouped together in the category of gay-sounding (3). I would argue that these individuals are heard as “gay-sounding” not because they are heard as sounding gay but because they are heard as *not* sounding like a stereotypical heterosexual, cisgender male. The phonetic style deviates sound as “other” or “non-normal” rather than “gay-sounding”. Zimman proposes that the “other” phonetic traits displayed by these trans* people were enculturated through the experience of being raised female (2). If this is true, then the question arises, is it the combination of the feminine enculturated vocal behaviours and masculine resonance frequencies resulting from testosterone administration that produce this vocal quality deemed “gay-sounding”? Or is it through the enmeshment of the visual presentation of the person with their voice? What makes these voices specifically “gay”-sounding, as “gay” implies that while sounding “other” these voices also sound distinctly male? While I have no interest in determining what makes an individual’s voice sound “gay,” I do find it interesting to note that the bi-genderism present within voices is more nuanced than the simple categories of male or female.

Even when researchers acknowledge that a person’s gender identity is unique, they still tend to describe their findings in binary terms. Many studies on transgender voices focus specifically on transgender female voices and their attribution. For example, Davies, Papp, and Antoni write that weighting of studies on transgender women within the field of transgender communication is disproportionate with significantly less attention being given to speech masculinization (2015, 121). Unlike speech feminization,⁴ which has been studied extensively,

⁴ See Andrews [1995] 1999; Becklund-Freidenberg 2002; Byrne, Dacakis, and Douglas 2003; Carew, Dacakis, and Oates 2007; Dacakis 2002; de Bruin, Coerts, and Greven 2000; Hancock and Helenius 2012; Hancock, Colton, and Douglas 2014; Hardy et al. 2020; Hooper 1985; King et al. 1999; Neumann and Welzel 2004; Oates and Dacakis 1983, 1997; Pausewang-Gelfer and Schofield 2000; Van Borsel, De Cuyper, and Van den Berghe 2001; Wiltshire 1995.

speech masculinization⁵ is underrepresented in the literature with transgender individuals who are seeking a more androgenous voice being accounted for in very few studies.⁶

Davies, Papp, and Antoni (2015) while including a section on speech and voice masculinization, are still unable to provide minimal standards for it because there has been so little research in this area. Davies and Goldberg recognize that there is a lack of research done on speech masculinization due to the assumption that testosterone provides a sufficient enough drop in pitch for FTMs (female-to-male) to be attributed as male (2006b, 2). This assumption does not account for those people who desire masculinization/defeminization of the voice but who do not wish, or are unable, to go on testosterone. Furthermore, it discounts the experience of people who have gone on testosterone but have yet to achieve their desired outcome. Davies and Goldberg describe a study where 25% of testosterone users were still perceived during telephone calls as female following a year of HRT (Hormone Replacement Therapy) and 31% were interested in further masculinizing speech therapy (2).

Non-binary voices are regularly erased from discussions of vocal transition. The idea of someone experiencing vocal dysphoria despite not necessarily aligning with just one of the binary genders seems to either perplex researchers and medical professionals or perhaps not even come to mind as a possibility. There are some studies that, while still primarily describing the transitional experience as male-to-female, at least acknowledge the existence of gender non-conforming trans* individuals.⁷ While these studies recognize the great degree of variance in trans* identities, the language used in these articles is still highly binary. I call for a shift and

⁵ See Azul 2015; Cosyns et al. 2014; Hancock, Colton, and Douglas 2014; Oates and Dacakis 1997; Söderpalm, Larsson, and Almquist 2004; Van Borsel et al. 2000.

⁶ See Davies and Goldberg 2006a, 2006b; Davies, Papp, and Antoni 2015.

⁷ See Carew, Dacakis, and Oates 2007; Dacakis, Oates, and Douglas 2012; Pausewang-Gelfer and Tice 2013; Hancock and Garabedian 2013; Mészáros et al. 2005.

expansion in our understanding of the term *transition* whereby the term does not imply specific beginning, middle, and end stages. We need to recognize that *transitioning* may also be a continuous state of becoming.

The negative narratives surrounding transitioning begin with the *threat of permanence*. I was certainly threatened by the notion that after starting testosterone my voice would never go back to the way that it sounded before. Discussions regarding my decision to go on testosterone would always include questions like, “What about your singing voice?” I argue, however, that the voice is constantly going through change. Vocal sound production is variable over circumstances from health and environment to aging, regardless of whether hormone therapy is involved. Thus, change, whether permanent or not, is an expected reality of vocality. In my view, framings that depict change as inherently bad do nothing but instill fear in the vocalizer. It is better to accept that change will happen regardless of our decisions. It would be easier on the vocalizer and a form of self-care if we could reframe our thinking to be open to these changes and look at them as moments of productive transformation.

Another negative narrative is *loss of vocal ability* due to experiences of decreased range and dynamic ability as well as changes in timbre that occur throughout transition on testosterone. The idea that a singer’s range will change as a result of testosterone therapy should not come as a surprise; as previously mentioned, a common reason for going on testosterone is simply to lower the voice. In contrast to this characterization of “loss,” I argue that the singer’s vocal abilities have simply changed. While the vocalist’s ability to sing higher notes may decrease, their ability to sing lower notes may increase. Trans* musicologist, Alexandros N. Constansis writes that “anyone dealing with FTM voices should understand that the vocal reactions to artificial testosterone are rarely stable or smooth, especially during the first year” (2013, 2). This

statement prioritizes a specific type of singing and snubs voices that do not sound in the standardized, “pretty” manner. There should be no shame associated with the breaks and cracks that come along with transition. As long as the vocalizer is not experiencing pain, these sounds can be conceived of and utilized in a new musical context.

Constansis goes on to describe the transitioning voice as “compromised in terms of power, volume and dynamics” (2013, 7) which suggests that the singer has limited capacity to perform. Power, volume, and dynamics, however, can easily be controlled via microphones, audio interfaces, speakers, and other amplifying equipment, and this might even support the longevity of a vocalist’s career. While not all musical genres support the use of amplification, I advocate for it as a means to provide care for the transitioning vocalizer. It shifts some of the onus to manage sound levels onto the sound technician, instead of requiring the vocalist to project their voice in ways that might pose a potential risk to their vocal folds. If using these technologies was commonplace regardless of genre, there would potentially be less shame surrounding the limited dynamic range associated with the transitioning voice.

2.5 Conclusion

Throughout this chapter, I have examined the literature on vocality and vocal transition, pointing to both valuable research and gaps that need to be filled. The latter part of this thesis aims to reframe these negative narratives of transition by characterizing vocal change as a regular occurrence in a singer’s life and thinking of changes due to testosterone therapy as new areas to explore rather than as losses. In my practice, I use improvisation as a methodology to explore, play, and reimagine the voice of the trans*, queer singer. While these sounds go against what I have been trained to understand as sounding “good,” I aim through improvisation to

reconceive of the newfound squeaks, grains, and breaks in my transitioning voice, not as a “loss,” but rather as moments of intrigue and transformation. I aim to change the narrative.

Chapter 3: Beyond the Binary – Transition to Infinity and Beyond

In the late summer of 2019 in Edmonton, Alberta, I got on a bus and sat near the window as it was near the end of the workday, and I wanted to make it easier for the next person to sit down. By the time they got on there were only a few seats left open and they had to push through the wave of people boarding to capture the seat next to me. One person sat beside me, while their friend clung to a pole across the aisle. As the bus approached my stop, I pulled the cord to indicate to the driver and the people around me that I was about to get off. The person next to me asked, “hey bro, can my friend take your spot?” I responded with a “sure, no problem!” and made a move to get out. “Oh, I’m sorry ma’am!” I froze, as the person sitting beside me apologized in recognition of their assumed mistake. My heart dropped into my stomach in a sinking feeling akin to the experience I feel on one of those elevator drop rides, but without the thrill of the amusement park. I quickly responded, “no worries, I’m neither,” and got off the bus as the doors opened at my stop.

Since this event occurred, I have come to a few understandings about people’s perceptions of my gender presentation and the immediate shift that can occur upon hearing my voice. I realized that up until the moment I spoke my appearance led my seatmate to believe that I was a man. When they said, “bro,” they were referring to me as a man, as opposed to just using the word colloquially as a gender-neutral term. While “bro” is certainly a gendered term, I have had friends who use “bro” to refer to people of various genders and thus, did not immediately assume that they attributed the male gender to me. Apparently, the sounding of my voice alone was enough to warrant being called “ma’am”. Just as Azul (2015) and Eidsheim (2019) suggest, these passengers assumed on hearing my voice that they were able to know something of my identity. For me, “ma’am” implies a certain level of respect and is most

commonly used for females of a certain age. My voice alone was enough to go from the casual designation of “bro” to the quite formal and female designation of “ma’am,” despite my presumed masculine visual presentation. It was at this moment that I realized that no matter how I visually present, people will generally assume I am female upon hearing my voice. This example serves to support the notion that the voice plays a primary role in the determination of gender (Azul 2015; Eidsheim 2019; Peraino 2007).

3.1 Autoethnography

As demonstrated above, this chapter utilizes autoethnographic methods, such as anecdotes, audio and video recording, reflexive journaling (Meyer and Willis 2019; Jenssen 2009), and analysis to explore the ways that gender has been forced upon my voice, the circumstances that led to my desire to transition, and how going through transition has altered my understanding of the role that gender plays in vocality.

Autoethnographic texts are read with the assumption that the author is a “real” person with a “truth” to tell in regard to their experience (Denzin 2017, chap. 1, 11). Spry explains that autoethnographies allow researchers to give accounts of themselves “by identifying and critically reflecting upon a particular personal experience intersecting the politics of culture” (2011, 30). As a form of qualitative research, autoethnography uses self-reflection in combination with writing on personal experiences to reflect on wider social and cultural meanings and understandings (Reed-Danahay 1997; Spry 2011, 2016; Jones et al. 2013; Denzin 2013, 2017). Further, autoethnography combines aspects of both ethnography and autobiography and thus, can be understood as a space where personal experience meets cultural assumptions (Ellis, Adams, and Bochner 2011; Spry 2011, 52). Denzin summarizes these different facets of autoethnography by describing it as “reflexively writing the self into and through the ethnographic text; isolating

those spaces where memory, history, performance, and meaning intersect” (2017, chap. 2, 5). It is a narrative used to convey one interpretation of an identity that is ever-fluctuating (Spry 2011, 93). In fact, there is no “real” person in an autoethnography, as an individual’s entire life cannot be encapsulated within its pages (Denzin 2017, chap. 1, 7). All stories of lived experience from ethnographies to autobiographies and autoethnographies can thus be understood as fictions. Rather than capturing the whole experience, such stories offer only a version or fragments of the narrator’s situation. In other words, both fiction and autoethnographies are “narrative arrangements of reality” (13). It is important, however, to note that what the author perceives as being their true experience has real effects (14). For example, if a trans* vocalizer experiences their voice as not sounding aligned with their identity, regardless of the experience of other listeners, this dysphoria will have an effect on the trans* individual’s experience of their voice. Thus, we can understand autoethnographies as including both “real and imagined facts and facticities” (12). Facts are “events that are believed to have occurred or will occur”, whereas facticities describe how individuals live through and continue to experience those facts (12). Statements that agree with the commonly understood facts and facticities of a community can be understood as the truth (12). Fictions that are accepted as truthful will remain faithful to the facts and facticities as they have been experienced or known (12).

Spry notes that “performative autoethnography is designed to offer stories alternative to normative taken-for-granted assumptions that clog our understanding about the diversity of experience and systems of power that hold “a single story” in place” (2011, 56). Spry appends performative onto autoethnography to invoke a theory of performativity, where the focus of the work is to function as social action and potentially enact change (19). Performative autoethnography also acknowledges that “the critical stance of the performing body constitutes a

praxis of evidence and analysis” (19). As I discuss in chapter 2, narratives about the trans* experience and specifically the transitioning voice tend to reinforce binary categorizations of the voice. Performative autoethnography can be used to both identify and question such restrictive and normative performances of gender (29). My story aims to depict a situation where the goal of my vocal transition is not to *pass* as one of the binary genders and further, to trouble the idea that those binary categorizations are useful in any circumstance.

Spry also explains that in order for autobiographical writing to be auto-*ethnographic* it must connect to larger social issues, as opposed to just being an account of the author’s individual experience (2011, 108). The events, relationships, and associated emotions recorded by the author must illuminate broader themes. The larger social issues implicated in my autoethnography include the ways in which binary gender roles and labeling practices have been enforced in the voice both within the field of vocal pedagogy and within society at large, and the harm such binary gender reinforcement has produced. I critique the cultural practices that result in the gendering of voices, thus contributing to research on transitioning voices, embracing the fragility of the space the transitioning voice inhabits, and hopefully helping readers come to a new understanding about their listening that results in restructuring their own labeling practices.

An ethical praxis of autoethnography includes both agency and representation (Spry 2011, 53). This research method gives me agency through the empowerment that comes from being able to give an account of my own experience of transition. Spry explains that in writing an autoethnography we are responsible and accountable for how we represent ourselves (53). Therefore, some consideration needs to be given to representation, especially when claiming labels like trans* and nonbinary. While certainly this autoethnography can be taken as a trans*, nonbinary experience, this should not discredit other experiences by other individuals who

identify with those labels. Through this autoethnography, I hope to give an account of an experience that is outside of normative understandings of transition, but it should only be taken as one of many possible experiences. While much of the literature suggests that anyone on testosterone aims to sound masculine, there should be an understanding that people's vocal journeys are entirely individual and that different outcomes may be desired.

Denzin writes that autoethnographic work should be interventionist and thus, give voice to those who might otherwise go unheard (2017, chap.1, 6). Trans* individuals are subject to various types of exclusion throughout society, including in academic work done on the voice. This results in a significant lack of work produced in the field of trans* vocality. When work discussing the trans* voice is produced, as discussed in chapter 2, often the language surrounding transition only caters to those seeking a binary gender presentation. My autoethnography serves to give my account of my vocal change on testosterone, as a trans* individual with no set goal for transition. I provide an outline of my experience of change within a transitioning voice and drawing upon my history of gendered vocal situations, with a particular focus on moments that pertain to my singing voice. I do this in order to demonstrate the different gendered expectations people have for the voice and explain how a transitioning voice serves to potentially complicate those expectations.

My autoethnography of vocal transition stems from months of reflexive journaling, recording, and reflecting on my various experiences and opinions of transition and vocal gendering. Starting in September 2020 (before the onset of this project), I began to keep a journal detailing various events in my vocal journey where I noticed some form of gendering. From January 2022 to February 2022, I analyzed these anecdotes and related them to my current experiences of going through transition as well as the knowledge I gained through reading and

research. From June 2021 through January 2022, I captured my vocal transition in bi-weekly sessions that served to demonstrate the various differences occurring in my voice. In the videos, I dictate both quantitative findings, such as an altered vocal range, and felt changes in the voice, such as my reactions to new timbres. Towards the end of January 2022, I listened back to all of the recordings and pulled out portions of the audio for the video, discussed in chapter 4. I related the observations within the videos to my listening at the time, and finally to the anecdotes from my reflexive journaling. Together these three instances of reflection make up the content of this chapter.

3.2 What a Trans*Vocal Session Entails

In the initial stages of formulating this project, the issue of how to capture the sound of my voice became a matter of great importance. My intention was to attempt to capture the sound of my voice as my ears hear it. After much investigation, and with consideration given to my budget, I decided on the AKG P220 vocal condenser microphone. Each microphone colours sound in a particular way, so many artists have various microphones to produce sounds that best suit particular situations. I chose the AKG P220 because I felt that it captured close to what I perceive to be the “original” sound of my voice. This does not mean that the microphone does not colour the sound, rather that it is colouring it in a way that I find close to my own “reality,” which is of course a fiction that interplays with many other “realities”. Because my voice is in fact being mediated by this technology, it is important to recognize that there is nothing more “real” or “true” about my voice recordings in this project than if I were instead to use another microphone or even just sing without technological mediation. As this project is supposed to result in the depiction of my embodied experience of transition, however, it makes sense to choose a microphone that sounds like “reality” from my perspective. I am attempting to let the

audience into my inner world, or as close as I can get. Further, choosing a microphone that colours my voice in a comfortable way gives care to me as the vocalizer and editor who has to listen back to all of these recordings. A similar process was taken while selecting a smartphone camera to capture video, focusing on how each camera colours scenes differently.

My recording sessions can be broken down into three main sections: the vocal warmup and assessment, the voice in the context of song, and vocal improvisation. The first section consists of a warmup followed by various exercises to test the range and other abilities of the three main resonance areas of my voice. As discussed in chapter 2, range is used in vocal pedagogy to categorize and gender the voice and trans* vocal literature focuses predominantly on the pitch shift that occurs due to testosterone. Thus, I have chosen to describe this experience of change and transition in the different vocal resonance areas as opposed to strictly range. I thought it would be productive to discuss the other kinds of changes that occur in the voice, from embodied felt changes to audible textural changes. There is a great deal of pitch overlap between my vocal resonance areas which resulted in certain notes sounding vastly different depending on the type of tone that I was using as well as the placement within my mouth.

As discussed in chapter 2, the three-resonance areas that I am referring to are commonly called head, chest, and mixed voice within vocal pedagogy. Because they are so technical, it is worth briefly reviewing these terms. Head voice is commonly associated with a higher register, as the vocal folds thin to produce sounds that are perceived as sounding “light” and “pure” (Malde, Zeller, and Allen 2013, 116-117). To produce this resonance area, the vocal folds must be stretched thin through the predominant action of the cricothyroid muscle (116). In an often-perceived opposition, the chest voice is commonly associated with the production of lower notes as they reverberate through the chest cavity and is commonly described as sounding rich and full

(Davies and Goldberg 2006b, 7). The chest voice can be heard when the vocal folds are thick and the action of the thyroarytenoids is superior (Malde, Zeller, and Allen 2013, 116). As an area associated with power, this resonance space is sometimes associated with the male voice (Davies and Goldberg 2006b, 7). While the head voice can be carried down and the chest voice can be carried up, there are limits (Malde, Zeller, and Allen 2013, 116). The aim in most genres of singing is to have the voice be able to smoothly transition between these resonance areas. The mixed voice is where the tone is balanced, as both “the thyroarytenoid and cricothyroid muscles are active, engaging and releasing in dynamic equilibrium” (Malde, Zeller, and Allen 2013, 117). While mixed voice can be used to ease the transition between chest and head voice, it does not always work out perfectly. When the voice is unable to make the incremental changes to allow smooth transition, this results in an abrupt and audible change in vocal timbre known as a break. While blending the voices is often the goal, breaks can also be heard positively as in yodelling. I tested the range of these three resonance areas individually while also checking for any variations in strength and stability as well as breaks in the transitions between them. Strength, for me, entails a certain level of comfortability in the voice, where it does not feel like my voice has to work hard to produce a note and I have access to my full dynamic range. Stability refers to how flexible and agile my voice feels on any given day. An unstable voice may not be able to move between notes easily and may even waver when trying to hold a single sustained note. While testing these areas, I would stop to describe what I was feeling in my body while producing these transitional sounds.

In the second section of each recording session, I captured my voice singing “Paper Bag” (1999) by Fiona Apple. It is important to note that I chose this song for a few reasons that are completely unrelated to its lyrical content, which is not of particular significance to me. Rather, I

chose this song because I am familiar with it, having played it numerous times over a four-year period (2017-2021), because I did not mind how my voice sounded singing it prior to transition with testosterone, and finally because it is set at the lowest part of my range. In choosing this song, I wanted to examine whether it would become easier to sing as my range expanded lower and whether the timbre of my voice would change and allow for different kinds of expression. Periodically, I also included other songs that I had recorded in the third and fourth years of my undergraduate degree (2018-2020), to capture a larger span of time as well as give a variety of comparison options that are not specifically within the lowest register of my voice.

In the last section of each recording session, I chose to do a free vocal improvisation to attempt to remove myself from the constraints of singing a song. Singing within the context of a song applies certain limitations to my musical choices. There is a set melody and text. There is also an expectation that I will sing pitches accurately, whether that is through the written note or a note of my choosing that is related to the chord or key being played. Without these limitations I am freer to choose any note, or textural sound, that feels comfortable or is of interest in my voice at that moment. Through these free improvisations, I am able to slide between notes and create different kinds of non-idiomatic sounds that might seem “inappropriate” within the context of a song. The context of a free improvisation allows me to divorce my mentality from my previous vocal training and feel comfortable making strange, silly, or even monstrous sounds. Through improvisation, I can express myself without these added boundaries and make sounds that embody and represent my experience more accurately according to my perception.

3.3 Transitional Changes

Film consultant Akkadia Ford writes that “there is no fixed destination for genders or sexualities, only the identification and embodiment that the individual chooses for themselves, utilising

whatever technologies fits [sic] their journey” (2019, 79). Despite the narrative that individuals on testosterone inevitably want to sound masculine, my personal transition has no goal beyond exploring how to sound more authentically me. So, I begin this section with a brief description of what each part of my voice sounded and acted like before testosterone. Then I describe how those sounds have changed over the seven and a half months of this study, from mid-June 2021 through January 2022. Dates in this section are not always specific beyond the month. It is difficult to identify a definitive date when a change occurred, because I experienced high degrees of variation in vocal ability and timbre from day to day.

Head Voice

Growing up in a small town in Alberta typically means that if you are a vocalist then you are also a girl. I grew up in the 2000s in an SSA choir, which means that the individuals present were split into the vocal groups of Soprano I, Soprano II, and Alto. In my town in rural Alberta, singing was thought of as a “girl’s” thing so it was not very often that an AMAB person would join the choir. When they did, they would generally be immediately shuffled into the Alto section without much discussion. There were always a few boys in the younger years but as we got older, they would always disappear. When we were younger, boys got put into the section that suited their voice and skill level best. It was not until I went to a city and saw a SATB choir, a choir consisting of soprano, alto, tenor, and bass voices, that I realized that I was 1) in a SSA choir and 2) that SSA choirs are generally all “female”. This is not to say that all SSA choirs are strictly “female,” just that, in my experience, members are predominantly AFAB individuals. I remember watching the SATB choir file onto the stage and stand in front of me as the gradient of gender went from AMAB people at the back and top of the risers to AFAB people at the bottom front. The sound produced by this choir sent a vibration through my body. It was like the choral

version of turning up the bass on the stereo. I was not accustomed to this rounded, bass-rich choral sound. My takeaways from this situation were that I was in an all-female choir and, to top it off, I occupied the highest vocal designation you could be and thus, would be incapable of producing the rounded, warm vibrations of a choir with “male” voices. Head voice was the only resonance area that I was trained to use at this time and thus, the idea of being a “female” was woven into my experience of using this vocal area.

As someone with twelve years of classical vocal training, prior to testosterone administration, my head voice had the robust clarity developed through the associated singing techniques. This phenomenon that allows the voice to carry in large concert halls without the use of microphones is sometimes known as the “ring of the voice” or the “singer’s formant” (Malde, Zeller, and Allen 2013, 161). This sound is accomplished through either opening up the pharynx or by making the laryngeal opening narrower (161). The vocal timbre becomes darker when the larynx is lower, creating an “operatic” tone (161). Other notable qualities include the grain of my voice which I would describe as being quite “clear” and “pure” prior to testosterone, like the endless, cerulean blue of a cloudless prairie sky. There was no rasp or grit to be heard in the timbre. This notion of “pure” sound production is consistent with vocal sounds idealized within the traditional Western classical vocal canon (Tonelli 2020, 3). During transition, it was an interesting experience to hear my head voice slowly become softer and airier; it sounded like more air was coming through the vocal folds and my range of dynamics became limited.

From June to August of 2021, my head voice was largely consistent with what I had heard in my voice prior to testosterone. The exception was in July when I started experiencing some airiness and grain in my voice. This was accompanied by minor tension issues that affected my voice but, overall, the vocal quality in this resonance area remained consistent. Had I not

been on testosterone I would probably have diagnosed my voice on these days as simply feeling and sounding tired. With the fatigue came minor pitch accuracy and agility issues, but these were resolved by the third month (August) as I regained energy. The major thing that I began to notice in August was that the break between my head and mixed voice had become pronounced.

Towards the end of the month this vocal resonance area started to sound wispy, as though my vocal folds were having a hard time producing the notes. This became more evident the higher I went in my range. In the middle of my range, my head voice rang out clearly and I had better agility than in other resonance areas of my voice, so the problem was not with my head voice resonance area, but rather with the high end of my pitch range.

In September, my head voice started to sound and feel pinched, airy, and strained. Despite that, my pitch accuracy felt strongest in this resonance area. As I sang higher and attempted to use an operatic tone and placement, I noticed that it sounded like more air was creeping in, resulting in a kind of wispy sound that had not previously been part of my voice. As the months went by, I started to accept the new range and volume limitations present in this area. To my ears, it sounded like a squashed, mashed, and scraped out version of what it once was, but I was happy to hear any kind of change. Prior to testosterone I often felt like my voice lacked character, as if it were a blank slate, but my transition seemed to be adding some grain and dimension to it.

Mixed Voice

A friend was told that they looked “too cute” to sing in this big band that they had auditioned for. My friend is female presenting and is therefore subject to all the issues of being a female vocalist in the predominantly male jazz industry. The adjudicator’s reason was that the

conductor wanted a “sexy” vocalist to sing with their band. Now, this excuse raises a number of questions, including: What does being sexy have to do with being a vocalist for a big band? What are your standards for being sexy? Is sexiness supposed to be an inherent thing or is it possible to attain sexiness by dressing in a certain way for a gig? Is there a sexy tone of voice that these people are looking for and if so, can a singer not use style and technique to attain that sound, or at least come close to it? My friend regularly wears slips as regular everyday dresses, so, I am not sure what kind of criteria these auditions were using to measure sexiness. But the message was clear. Personally, this entire situation gave me three reasons to never try out for this band. Firstly, not being sexy enough is a terrible and sexist reason not to hire a vocalist. Secondly, there is no way that I would ever be able to perform their version of sexiness. Thirdly, this acknowledgement of a female standard for acceptance into the big band implies that there would also be a standard for a male vocalist. With my voice being quite high, even by female standards, while I might be able to fill the role of male crooner visually, I certainly would not be able to meet their aural standard. For me, mixed voice is a resonance space that I trained in to sing jazz “properly,” as per my instructors’ idea of the genre (which definitely didn’t include the influence from my musical theatre background!). My experience is thus tied into the problematic binary gendering issues highlighted by this band’s prejudice.

At the beginning of my transition with testosterone, in June 2021, my mixed voice sounded more controlled and directed, similar to my spoken voice. However, as the months went on, I gained more air sounds in this mixed voice resonance area. By the end of the first month, the higher register of this resonance area started to sound and feel weaker, as I found it progressively more difficult to produce sound there. In other aspects, it sounded very clear and bright, like the yellows and oranges of a sunrise, with the break between my mixed and head

voices being consistent with my pre-testosterone voice. Instability, shakes, and bubbles appeared throughout the higher parts of the range in July. By August 2021, my pitch accuracy and agility with those notes became increasingly inconsistent. When attempting a pitch, my voice would sound compressed, as if incapable of sounding the entire note, and when moving between notes in a phrase my voice would bubble off the pitches. A little bit of gravel, taking the sunrise colours to sunset, had also started to appear in my voice, but with some mindful control I was able to keep the sound clear, if I wished.

I think that I unconsciously shied away from the gravel in my voice, as my undergraduate vocal teachers always heard it as an indicator of instability due to fatigue or lack of practice. Throughout August, I gained power and a bit more stability in the lower notes of my mixed voice and as a result I started to feel more confident and secure with my voice in this area. The higher notes of this resonance area settled and gained back some of their old strength around the end of September. However, that somehow did not translate to the range in which I was able to belt, as it was around this point that my belt began to sound a bit pinched on the high notes, despite sounding clear and bright up until then. Belting is difficult to describe as most singers define it by how it sounds and feels in their particular voice. I characterize it as a mixed voice technique that utilizes more chest voice than head voice, around a 70/30 split. Anatomically, by engaging the aryepiglottic muscles, the area where the larynx opens to meet the pharynx is made smaller creating the acoustical circumstances to produce the “singer’s formant without lowering the larynx” (Malde, Zeller, and Allen 2013, 157). The timbre that this acoustic advantage produces is steely and bright, like a Broadway musical singer, with less vowel modification than the “operatic” tone that accompanies the lowering of the larynx (157). By October, basically the entire range of my mixed resonance area was back to sounding clear and bright. There were

some airier grains slipping in, especially in the head-dominant mixes but the more chest-dominance I gave to the split, the clearer the sound resonated. Instability started to take over this area again in November, with breaking and squeaking occurring throughout my range. By the following week, I once again experienced an increase in strength and stability, and I noticed a fuller bodied sound. It seemed that if I focused carefully on my breath control and vocal placement, then I could control the instability in my voice to a certain degree. Week to week I would pass back and forth between a grainy, breaking voice and a clear, bright voice. By December, I gained more stability in my mixed voice, especially in my lower range. It is easy to get picky when focusing narrowly on a specific area, but it is important to remember that the voice is always in a state of change and thus, will not always make the sounds that are expected of it. As of January 2022, this resonance area was the most stable part of my voice, that caused me the least amount of strain and tension to sing in.

Chest Voice

For various reasons, including my gendered designation as a soprano, I decided that classical music and opera were not for me and instead chose to go to university for jazz and contemporary popular music. In my very first master class in my first year, I broke down crying after my turn to sing and my only explanation was that “I sounded wrong”. My notes were correct, but I was distressed that I sounded like an opera singer as opposed to a rock singer. At the time, I put it down to my perfectionism, which certainly played a role, but now I realize that, through my experience of growing up in an all-girls choir in a small town in Alberta, I had unconsciously connected classical and, particularly operatic, singing with being female. While I recognize that anyone can train in classical style it was an unconscious connection that I had made for my own singing. The first few years of my degree were filled with moments like this, as I attempted to

“break” some of my classical training in favour of the new techniques my contemporary training was providing. Every week would end in tears because I would sound like an opera singer and thus, a girl, which was a sound that I could not accept as coming authentically from me.

Up until August 2021, my chest voice felt powerful and clear. The transition between my chest and mixed voice was also quite smooth. However, in the middle of August, my voice started to sound gravellier and began to feel unstable, as I attempted to cling to some notion of pitch accuracy. In recordings made during this time, I note that I feel like my voice is sounding “strong” but in listening back, I hear my voice as a bit thin and fatigued. It is analogous to the extra energy of using multiple strokes to colour in a picture with a ballpoint pen as opposed to the one smooth stroke of a felt pen. As I progressed through the month, the break between my mixed and chest resonance areas became more pronounced. By September, my lower notes gained strength and support resulting in a more stable sound. For the first time in my life, I began having a sort of synaesthetic experience whereby I began to hear what I could only describe as browns being added to my voice. There was something about the new warmth and depth that I experienced in my voice that evoked these sensations of brownness. In the October recordings, I described my chest voice as sounding robust, present, and dynamic with the exception of the lowest reaches of my range. My lowest notes crackled with instability and airiness. Like any muscle, the vocal folds require time to acclimatize to the effort and movement required of them in order to create different sounds. Throughout the month of October, I gained more cracks, grains, gravel, and instability throughout my chest resonance area. By November, there was a lot of gravel and vocal fry present in my lower range that caused me to bubble on and off pitch. December was the same with a little bit of strain and tension creeping into the extreme edges of

my range. In January, I started to feel some strength in the form of stability returning to this vocal resonance area.

Highest Note

Accounts of vocal transitions aided by testosterone generally advise trans* individuals to expect a range decrease within the first few months (Constansis 2013). This held true in my case, with the most significant and measurable difference in the highest notes of my range, starting with beginning self-administration of testosterone in June through to August 2021. Before starting testosterone, I was consistently able to sound a G6, with an A6 being possible on my “good voice” days, when my voice was feeling more flexible, strong, and comfortable. I was able to hit the note with some degree of clarity and very little wavering on the pitch. After two months on testosterone, I experienced a seven to eight semitone decrease in range, but I had regained approximately two to three semitones by the end of September. Through the fall and onwards, I could consistently and comfortably reach between a D6 and an Eb6, as depicted in figure 5. There were occasional semitone dips on weeks when my voice was feeling fatigued but otherwise my highest note was consistent throughout November and December. What is interesting about this change is that prior to testosterone my highest notes would gradually decrease in amplitude and stability, wavering on the attempted pitches. Whereas by November, any note attempted above my daily highest note simply did not sound. It was as if my voice had a limiter on it that did not allow sound above a certain frequency to escape.

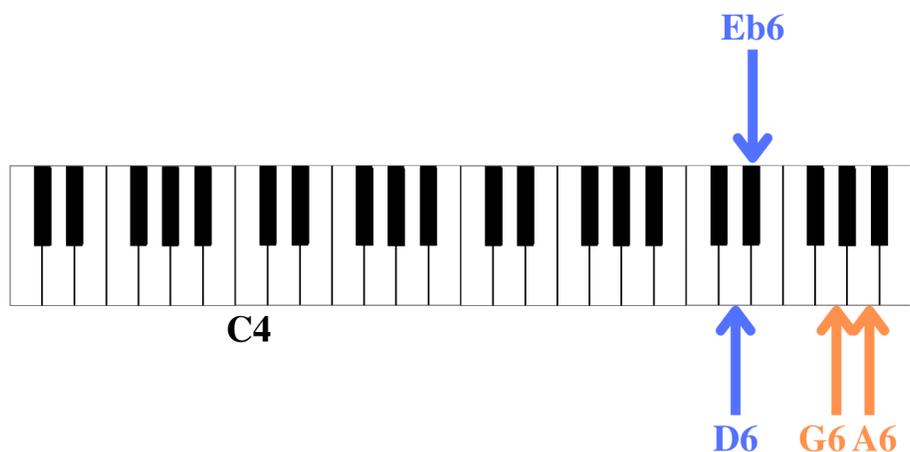


Figure 5 Image pointing out Meg LaRose’s highest note change on a keyboard. C4 is given as an orientation point. Orange = notes available pre-testosterone. Blue = notes available after starting testosterone.

Lowest Note

The expectation when going on testosterone is that there will be a significant increase in the lower range of the voice. Due to the fact that I am microdosing, I expected that changes would be more gradual, as opposed to the drastic and rapid drop in pitch that people sometimes experience on higher dosages. As expected, my journey with my lower range has been a slow, gradual stabilization and extension over the course of these seven and a half months, from mid-June 2021 to January 2022. Prior to starting testosterone, my lowest consistent note was an Ab3 (shown in figure 6). Over the first three months on testosterone, I gradually gained more strength and stability to consistently sound a G3. Halfway through August, I started being able to sound an F#3. The next three months could be considered a kind of stabilizing period for the F#3. Finally, I started being able to sound an F3 in December of 2021, with January being another stabilization period. I have in fact been able to sound down to at least an E3 since August 2021, when using semi-occluded vocal tract (SOVT) exercises. SOVT exercises include humming, lip

trills and any other vocal warmups that do not open to the vowel.⁸ These kinds of exercises are often used in vocal warmups and for fatigued voices in order to relax them, put the vocal folds into optimal position, and decrease the overall workload of the vocal folds. Thus, it may be more of a matter of technique that allowed me to reach those lower notes, as opposed to my testosterone level. My vocal folds were able to sound a few notes below the “lowest notes” listed above for each month when using SOVTs. Basically, the notes are there; I just require time to get used to how to support the sound throughout my vocal tract.

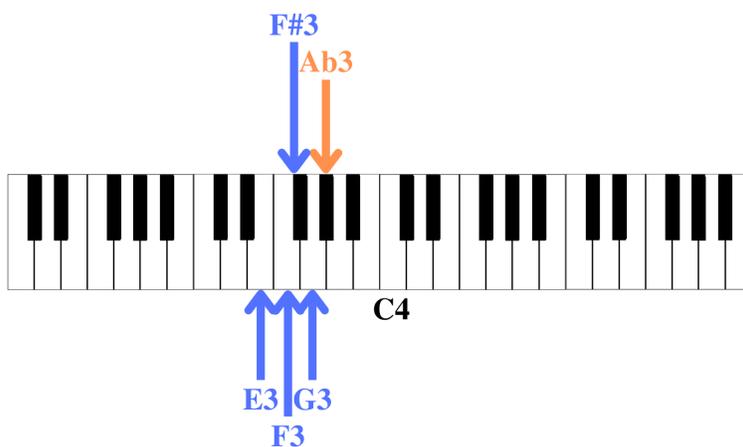


Figure 6 Image pointing out Meg LaRose’s lowest note change on a keyboard. C4 is given as an orientation point. Orange = notes available pre-testosterone. Blue = notes available after starting testosterone.

Song

Every year until I finished high school, I would choose a musical theatre song to perform in my town’s music festival. When I was younger, songs tended to be assigned by age range as opposed to sex or gender. The assumption was that before puberty singing voices generally fall within a similar treble range. As I got older, it was an annual occurrence to look up “musical theatre

⁸ For examples of SOVT exercises see: <https://baysidevoicecentre.com.au/the-complete-guide-to-straw-therapy-for-sovt/>

songs for girls” or “musical theatre tunes for sopranos”. No one told me that these were the only types of songs that I was allowed to choose from; however, it was made clear that transposition was an inconvenience to piano accompanists, and these searches would yield the best results. Another reason was the song choices I saw represented in the various music festivals I participated in. Each binary gender group had their own recommended list of songs. Singers would cycle through the same lists - for boys or girls - year after year. By not choosing from either list, I already felt like I was going off script.

I selected Fiona Apple’s “Paper Bag” (1999) for this study with my particular voice in mind, as it showcases my lower range. I had been singing the song for four years prior to this study (2017-2020), which meant that I had familiarity with my vocal range and associated timbral ability within the context of the song. Additionally, I had thorough knowledge of the chord structure allowing for easy transposition to a different key, if required. In my first two months on testosterone, I could hear myself bottom out on the lower notes of the song. I intentionally set the song in the key of Ab Major, putting the melody just barely within my lower vocal range, in order to hear the potential changes to this range over time. By the second month I was able to hear some improvement in the volume and clarity of my lower notes. They were more stable, but I still experienced moments of bubbling off the lowest notes with unintentional vocal fry. While the lower notes were becoming stronger, however, the higher notes were accumulating strain and tension. By August, bits of gravel in the form of vocal fry entered my voice and I wavered through the pitches in the higher parts of the song, any time the melody was an Ab4 or above. While vocal fry, and general roughness, is sometimes associated with masculine voices (Hardy et al. 2020, 300.e13), as of January 2022, I heard my voice on these recordings as sounding more fatigued instead of less feminine.

As the month ended, the parts of the song that centered on my mid-range, between C4 and G4, became more present and rounded. The mid-range of this song is settled in a more spoken mixed voice, meaning that the head to chest voice ratios are fairly even, making for a comfortable physical and auditory experience. Often my physical comfort in producing a sound will impact my listening experience. Therefore, if the production of a sound feels relaxed and easy in the voice then I am more likely to enjoy listening to those sounds. My lowest notes, anything below A3, were still a bit unstable but every now and then I was able to sing one of the lower notes and a shiver of excitement and anticipation reverberated through my body. My voice in that range started to sound to me like a warm blanket of goo, like chocolate fondue or molasses or nin jiom, a natural cough medicine often used by singers. I began to hear glimmers of warmth, thickness, and richness in my voice.

Around October, the recordings began to sound higher and lighter; it sounded like the song was less difficult to sing. One explanation for this sonic change is that the increased thickness of my vocal folds was likely making it easier to sing the lower notes. It is also true that I was still occasionally bottoming out, meaning that there was some vocal fry present on my lowest notes. There were also random breaks that appeared throughout my mid-range starting in September. In October, the lower notes still sounded like I was using a knife to scrape butter across dry toast, but the rest of the song was sounding clear and with the ease of a spoken voice. I kept trying to push through the gravel in my voice which caused increased fatigue. This was not a conscious decision but rather, a knee-jerk reaction to assumed “issues” in my voice. In hindsight, lightening up by using a less chest dominant mix would have decreased the tension in my voice which, therefore, would have sounded “better”. This frustrating situation demonstrates how imposed vocal expectations do harm in unconscious ways.

In November, I was experiencing more breaks in my voice creating a yodel-like sound. Within the context of the general skill assessment section of my weekly recordings, I probably would have taken it as a flaw or error, but it sounded cool in the context of the song. The timbre of my voice began to include some darker tones filled with gravel, making the song sound sexier to me. By the end of November, I attempted a lower key because the higher notes were sounding strained and causing me a lot of fatigue. Transposing the song a whole tone lower felt like I was a pirate searching the bottom of an empty bottle of rum to find the notes. Transposing one semitone lower, while not perfect, at least allowed me to sound all the notes with relative ease and put less stress on my voice. I also gained some natural vibrato, which to me indicated that my voice was feeling a certain degree of relaxation. I decided to flip between resonance areas to combat my fatigue issues. While these choices sounded a bit awkward, I was comforted by the fact that I was able to sing with a bit more ease. By December and into January, the lower notes of this transposition were sounding fuller and with less vocal fry. Overall, the whole song sounded like it was causing less tension in my voice and the choices I was making sounded more intentional.

As with many vocalists, it is common for me to sing the same song repeatedly over long periods of time. In my experience, it is also generally recommended that vocalists record their practice sessions and listen back. This review gives the singer an external ear that can be helpful for addressing various “issues” from correcting pitches to making specific timbral decisions. The difference between my recordings prior to testosterone and these transitional recordings was the intention behind them. Growing up, this repetition was performance oriented, and the recordings were used to point out the “flaws” in my voice. Throughout this research-creation project, my goal was to notice the changes occurring in my voice. My attention shifted from product to

process, which allowed me to give care to my voice and allow it simply to be, without judgement, on any given day. Unlike in the past where how I was supposed to sound was decided for me, I am now able to make interesting, expressive choices based on my own preferences.

Improvisation

My sister and I always joke that I am the psychedelic rainbow sheep of the family, as opposed to a black sheep. People have generally decided to accept that I am “crazy” and “weird” and, because this is true, there is no way to reason with me. Therefore, to a certain degree, I am more or less free to make my own choices. I am one of the lucky few queer, trans individuals that has a family that supports me and allows me to be myself. In my small hometown of 7,800 people, I was known as a performer. People explained anything a little bit outlandish I did by saying, “Oh that’s just the way Meg is”. From duct tape shoes and glasses to running around for months with a blanket on during high school, no one seemed to bat an eye at anything I did. Being queer and not identifying with gender were always a present reality and if anyone asked, I would say that I was Meg and that I liked people, but honestly this was just part of my being “weird” and “abnormal” that people had already accepted. So, for a long time I did not think about specific labels because being Meg already encompassed all non-normative behaviour. For me, being queer has long been equated with being “weird” and “alien.” To me, non-idiomatic vocal techniques sound like singing my identity.*

For the first few months, my improvisations sounded very similar. More than just the tone and range, even the lines that I sang, the melodies and rhythms, were virtually identical to the lines produced in the previous weeks. When listening back to the recordings, I started to get bored with the repetitive nature of my improvisations. I could hear myself attempt to sing lower

notes, but I always ended up shooting past my range. Immediately after I bottomed out, I would abandon my improvisation idea and return to the same old ideas in a small, mid-range. In retrospect, I probably felt more in control in this range which made it more comfortable to sing in. By the end of August, I heard myself start to gain more confidence in my lower range and began to explore this newfound area in my improvisations. I noticed that using sustained notes was easier as it allowed me to acclimatize to the note and be decisive in my selections of subsequent notes. This allowed more preparation time for my voice, which meant fewer breaks and general instability to contend with. It was clear to me that my improvisations were coloured by my years singing jazz. My classical training can also sometimes be heard, but mostly when I am using sustained notes.

During late September and early October, I experienced troubling issues with misgendering, when incorrect pronouns were repeatedly applied to me in a very public manner. Interestingly, I can hear the impact of these events on my recorded improvisations, as I regularly attempted to sing lines in my lower range. While there was less indecision in my musical choices than usual, I was also bottoming out more than I had been in the previous few weeks. I was clearly choosing to sing in my lower range, as if there was some escape from misgendering to be found there.

In November, my approach to improvisation became more experimental as I met the vocal improvisers taking part in the Resonance Project, a multi-part research-creation project spearheaded by Dr. Ellen Waterman. Two professional and two community vocalists were asked to co-create music in response to a group art exhibition at the Carleton University Art Gallery concerning the work of the maverick Dada artist and poet Baroness Elsa von Freytag-Loringhoven. I was the research assistant in charge of documenting the creative process in audio

and video. During the course of this project, my conception of vocal improvisation was stretched. From groans and gargles to shrieks and swooshes the professional singers, Gabriel Dharmoo and Kathy Kennedy, have significant experience with vocalization using non-idiomatic vocal techniques. Listening to them improvise opened my mind to possibilities outside of the limitations of the vocal techniques I had learned in my classical and contemporary training. Further, this experience pushed me to reconsider the ways in which my current techniques could be utilized in combination with non-idiomatic techniques, as opposed to an either/or situation. In this way, I began to open myself up to a larger world of possible sounds to use when singing and not necessarily to be limited by the context. The sounds that they made were very “alien” to me and I found myself asking how they were produced, as opposed to judging their aesthetic quality.

Importantly, to me, these alien sounds did not signify a specific gender. This had the sonic effect that I aim for with my visual presentation, where if someone looks at me, they might come up with multiple responses as to what my gender might be instead of assuming my gender attribution. For me, these sounds provide the potential to confuse people’s perceptions of my vocal gender situation. After experiencing the improvisations in the Resonance Project, my improvisations started to become more creative and playful. However, it was not until around March of 2022 when I was introduced to Christine Duncan, that my ability to imagine and produce these types of sounds opened up. Christine gave me a list of sounds to try and a list of experimental improvisers to listen to, and she allowed me to join an improvisatory choir that she directed as an artist-in-residence at Carleton University. These experiences helped me to realize the different choices that were possible and the broad range of sounds I was capable of making. Now I can have fun with my singing voice, making “weird” sounds, as opposed to focusing my attention on the gender I am signifying to listeners. These sounds suit me because sounding

“weird” or “alien” aligns with my understanding of my own identity. In June 2022, I had the opportunity to explore these sounds further with Kathy Kennedy and Gabriel Dharmoo while participating in an improvisatory choir under their direction in a performance entitled *Cosmic Chemistry: Performances after the Baroness*, depicted in figure 7. As this discovery of creative improvisation has provided me with a safe space for non-gendered soundings, I look forward to future research detailing the potential of using creative improvisation as an ethical practice of care for non-binary and trans* soundings.



Figure 7 Meg LaRose performing in *Cosmic Chemistry: Performances after the Baroness*. Carleton Dominion Chalmers Centre, June 25, 2022. Photo credit: Melanie Mathieu.

General Vocal Quality

During the four years of my undergraduate degree, I spent a significant amount of time examining my voice and attempting to expand my range with very little noticeable difference. While microdosing testosterone, the moment that I gained even a semitone lower in range felt

like a momentous occasion of significant growth. By the time September arrived, even though the change was unlikely to be heard by anyone else, it was exciting as it felt like a big difference to me. Thus, when someone misgendered me again, that sinking feeling that accompanies misgendering felt even stronger. Above, I wrote that being misgendered is like being on one of those drop tower rides at an amusement park: a sick feeling in the pit of your stomach. This time, it was like blindly dropping from the highest point of the ride. At that moment of misgendering, it became clear to me once again that the sounds that I believed I was sending into the world were not being echoed back to me by listeners.

Over the course of this study, one of the major changes that I noticed in my singing voice was the addition of a depth, warmth, and full tonal quality. Fascinatingly, this quality was almost undetectable in my speaking voice. Through this gradual addition of depth in my voice, I am finding an interesting cross-section of experiences where, while these changes are certainly lowering and adding depth to my voice, I do not feel like I am sounding more masculine or “male” as dialogues about testosterone transition would lead one to believe. Instead, I am feeling progressively more like I am sounding fuller, like there is more of myself. Due to the process being slow and gradual, without regular voice check-ins with my singing, I might have concluded that there was essentially no change occurring. Luckily, the in-depth listening required for this project allowed me the opportunity to be attentive to subtle changes in my voice. I was able to listen for the additional colours and textures of sound that eventually entered my voice. Unlike narratives that describe the death of the pre-testosterone voice, I have found my voice in transition to be predominantly accumulative. While certainly parts of my pre-testosterone voice have changed, there are still aspects, like the lilt of my phrases, that remain the same. Ultimately,

this process of transition has allowed me to sound more me through expanding my practice to encompass more sounding potentials and shedding unnecessary mental limitations.

3.4 Conclusion

This research-creation project has taught me endless lessons about my listening practices.

Previously, I experienced my voice in a highly gendered manner that was supported through the listening practices taught to me throughout my life in various communities such as my rural

Albertan town, my youth choir, the streets of Edmonton, and my undergraduate and graduate

studies. Recording my singing voice while undergoing testosterone treatment has allowed me to unpack these experiences and come to an understanding that transition and change are natural

parts of life not necessarily specific to trans* individuals. Humans change, grow, learn, unlearn, and transition to new ways of being throughout their lives. I have begun a journey of removing

my labeling practices from voices, as no sound is inherently the product of any gender or sex.

Our voices are enculturated in particular ways of sounding that denote culturally constructed gender identities. However, if we listen past these cultural boundaries to the individual, we can

begin to hear beyond the binary and dispense with gender labeling practices that are based on problematic, bi-genderist concepts. In doing so, we give care to trans* vocalizers. Just as

communications experts Capecchi and Cage state in their book *Living Proof: Telling Your Story to Make a Difference* (2015), I hope that telling my story helps others going through their own

vocal transitions. By vulnerably sharing my deeply personal lived experience of imposed binary gendering, I create opportunities for others to examine their own listening practices and begin to

unpack how the way we listen to *all* voices is enculturated, *including our own*.

Chapter 4: Expressing Me(g)

Over the course of several months, I have explored, documented, and listened critically to the changes occurring in my voice after beginning testosterone treatment. In chapter 3, I identified the role that the social construction of gender has played in my experience of my voice, both before and during transition. Chapter 4 describes how I translated my experience of transition and gender in my voice into the medium of film.⁹ I discuss ethnographic film making and trans film in order to provide context for my artistic and technical choices. *Trans*Vocal* (2022) is an experimental music video that documents my experience of transitioning on testosterone, as it pertains to my voice, from mid-June 2021 through January 2022.¹⁰ The film is just over seven minutes in length and uses a poetic approach to convey my emotional and felt bodily experiences of transition. It works to disrupt the problematic narratives described in chapter 2 by giving the viewer the opportunity to hear a personal portrait of a voice in change. It is also important to note that, like much of the writing in this thesis, *Trans*Vocal* is autoethnographic: I am subject and director, videographer and editor.

Steven Feld writes that discussions of film often stress what is “in the images” as opposed to how they have been selected and reassembled in a specific order to communicate a filmmaker’s point of view (1976, 298). He stresses the importance of recognizing that cameras do not take pictures, people do; thus, it is important to recognize the filmmaker’s attempts “to communicate feelings, concerns, stories, and experiences” (299). Indeed, as many ethnographers

⁹ In this chapter, I use film and video more or less interchangeably. I use the term “film” when referring to the idea of telling a story through time-based visual media, and I use the term video when referring to the genre of music video. Previously, the distinction between film and video stemmed from pre-digital film stock and video tape, the expense of the equipment, the intentions of the work, and the length of the product. With technological advancements, cross-genre work, and varied lengths of media, this division has become less meaningful.

¹⁰ Access to a version of *Trans*Vocal* that accompanies this thesis can be found at: <https://youtu.be/RrvTRsIKICY>

have noted (Rouch [1975] 2009; Vertov [1934] 2016), the first edit the videographer makes is the decision of where to point the camera. This same line of thinking should be applied to the audio recordings that accompany these images. I am recording my voice, with a particular microphone, and subsequently, choosing the information that I believe is important to share with an audience. Both voices (Eidsheim 2019) and films (Pillai 2014) are often understood to be singular wholes, rather than collective enterprises that are subjected to numerous unpredictable factors. But a film, like a voice, is collective. Even a single-authored film has multiple elements, such as a number of audio and film tracks, interacting to form what is understood as the whole. Further, each of those elements is subject to the conditions under which they were recorded during the production stage as well as the editing and processing that occurs in the post-production stage. *Trans*Vocal* is but a fragmented depiction of my experience with transition. I have chosen and arranged elements of my process that I feel best depict my experience.

Spry writes that “the process of performative autoethnography seeks to identify and call into question performances of class, race, gender, and other performativities marked as normative and restrictive by creating alternative ways of being through performance” (2011, 29). My transitional film can be considered a performative autoethnography that identifies and questions the gendered labels that have been applied to my voice. Through the film’s creation and presentation, other ways of sounding gender can be imagined. My initial intention was to make a typical documentary, to show the “reality” of what happened during my transition. I intended to include shots of me recording and discussing what was going on with my voice. Eventually, I realized that this was not the most effective method to represent my experience of transition. There is no one “reality” that can completely encapsulate my experience of this transition, as a documentary might imply. Further, sit down, interview style documentaries can

certainly be interesting, but they do not produce the experiential effect that I want my creative work to yield. Instead, I opted for an experimental, poetic style that follows a “show don’t tell” rationale. However, even with this experimental format, I do consider this music video to be a documentary in many ways, as it does document my transition and uses footage recorded during this time period.

As Los Angeles-based filmmaker and artist Wu Tsang explains, films “communicate through sound, image, and music to provoke an emotional experience” (Stanley, Tsang, and Vargas 2013, 69). I connect Wu Tsang’s concept of “provoking an emotional experience” with my own notions of experiential filmmaking. I chose film to depict my transition, as I believe that this medium allows me to make my feelings and understandings of my transition experiential for the viewer. By experiential, I mean that through the music video format I allow the listener to experience the events of transition for themselves. Instead of being told directly how to think and feel about the subject in the video, the audience is left to draw their own conclusions. This differs from other formats of documentary filmmaking where the audience is told exactly what is happening on screen. In chapter 3, I explain exactly what was happening in my voice, and my feelings surrounding the changes that were occurring over the course of this project. Through *Trans*Vocal*, I translate those emotions into sounds and images for the audience to experience and connect with on their own terms.

While I have left interpretation open to the audience, it is impossible (and undesirable) to remove my perspective from the film. Steven Feld suggests that the way a shot is structured and selected is indicative of the videographer’s personal “cultural experience” (1976, 308). Through capturing, selecting, and reassembling images and sounds that are indicative of my experience, I aim to communicate my transition in ways beyond textual description. Words alone are not

enough to fully convey my experience. One of Hugo Zemp's main concerns when filming music was to express the point of view of the musician (1988, 394). Certainly, this project intends to capture my personal experience of transition as a singer and to convey the associated feelings back to an audience. I chose film as it allows me to demonstrate my feelings about transition as a multisensory experience. *Trans*Vocal* allows me to create what I believe to be a richer, fuller, and more felt experience for my audience. This does not mean that I am attempting to manipulate the audience to feel particular emotions while watching the film. I have simply done my best to create a film that represents my transition and hope that it brings the audience some deeper understandings about transition as liminal, recursive, and non-teleological.

I also considered a vlog or ethnofiction as potential formats for *Trans*Vocal*. A vlog (or video blog) would use a linear timeline to demonstrate how the sounds of my voice changed on a month-to-month basis, as is often seen in documentations of transition on YouTube. An ethnofiction can be considered a combination of documentary and fictional film. If I chose this format, I would examine my various experiences of transition, including pre-testosterone, and organize them into a narrative. I would then create a storyboard and film re-creations of real-life events to depict my emotional experience of transition. This is one of the most common formats that I have seen used for films about queer lives, and one that I have experience making. While stories depicted in this format may not be entirely "truthful," as they are based on re-creation rather than documentation of events, the feelings associated with those moments and what they aim to evoke in the audience are "true". Ethnofiction may be a format that I eventually return to; however, at the time of this project my feelings about my transition and what moments were important enough to emphasize were cloudy. Further, my concern about COVID-19 safety prevented me from filming in a way that would accommodate the cast needed to tell my story.

Additionally, I felt that the linear, storytelling format could not encapsulate the complex feelings that I was experiencing about my transition. Thus, I chose an experimental and poetic film format that allowed me to utilize techniques that are recursive, such as looping and layering, to disrupt linearity. Hopefully this alternative structure helps to complicate and problematize understandings of transition that only include trans* experiences that are goal-orientated, with a specific beginning and end point.

This chapter serves to further clarify my authorial intentions and creative decisions in making *Trans*Vocal*. My film draws on both the work of ciné-ethnomusicologists and trans* filmmakers, whose work can be traced back to trans film festivals in the 1990s. Further, the inspiration for this film project comes from trans* vloggers on YouTube who have created videos singing during their transitions on testosterone. I provide a brief history of each field, explain how it informed my project, and describe some of the techniques commonly used. I also explain why I did or did not choose to utilize those techniques in my own film. The final section deals with specific filming and editing decisions I made to depict my experience of transition. I analyse my process and reflect on what I could have done differently.

4.1 Ciné-ethnomusicology

Ethnographers and biologists have been recording sounds since the invention of the phonograph in 1877 (Akiyama 2015, 17). By the early 1890s, it was commonplace in fieldwork to use the phonograph to capture sound in the field (17). Around this time, Richard Garner, an amateur primatologist, recorded a caged monkey howling in New York's Central Park with a cylinder phonograph and then played back the recording for another monkey to analyze the reaction (67). With this action, he created a technique commonly used today known as "playback" (67). A neuroscience professor named Klaus Zuberbühler similarly used a spectrograph to determine the

linguistic capabilities of monkeys (67). “Spectrographic imaging, paired with a means of repeating, slowing, transposing audio, helped him to recognize, and effectively understand, his subjects’ speech” (67). I use these examples to demonstrate how voice has been an object of study since the beginning of audio recording. Interestingly it was not until 1934 that “field recording” first appeared in the Oxford English Dictionary (16). Jonathan Sterne writes that there are minimal physical copies of recordings that preserve the sonic past, prior to the twentieth century (2003, 7). Communications scholar Mitchell Akiyama proposes that this is perhaps due to the fact that field recordings were not perceived as important study objects themselves but rather as auxiliary to other, already established, methods of data collection (2015, 17). Researchers eventually discovered that this technology provided a capturing of interviews in what was believed to be their entirety and allowed for playback (61). The use of this technology was believed to help remove some of the bias of the researcher and allowed them to give their full attention to the subject being interviewed, rather than on writing notes (61). This is not to say that recording technology removed bias. Rather, people believed that, because this documentation style was fairly legible and it gave the appearance of being the “actual” scene, it provided a stronger foundation for work than notes that might only be intelligible to the researcher. It was not until the 1920s that music was recorded for listening in the sense of commercial purposes and further, it was not until the mid-1930s that “collectors like Alan Lomax began recording sound for its own sake, as a way of archiving and disseminating aesthetic objects” (Akiyama 2015, 17-18). By this time, film had already begun to gain headway as a method of data collection for ethnographic fieldwork.

Film was used in ethnographic fieldwork as early as 1898, with the work of zoologist turned anthropologist, Alfred Cort Haddon (Feld 1976, 305). By the 1920s, Soviet experimental

filmmaker Dziga Vertov and American proto-documentarist Robert Flaherty were beginning to lay the groundwork for what today is known as ethnographic film (Rouch [1975] 2009, 82). In the late 1930's, anthropologists Gregory Bateson and Margaret Mead, "were using still photographs and 16mm film for personality and child development studies in Bali and New Guinea" (Feld 1976, 305). People who had the means to make films were hard to come by due to the size and expense of the filming equipment as well as the cost of the crew required to operate it. By the 1940s and 1950s, technological advancements brought about the revival of ethnographic film as the smaller size of cameras and tape recorders increased the mobility of ethnographers and filmmakers and allowed for smaller crew sizes which decreased the cost of such productions (Rouch [1975] 2009, 85). By the 1960s the number of ethnographic films being produced increased exponentially (86). Within ethnomusicology, film began to be used as a medium of research and presentation with filmographies covering folk music and dance across regions of Africa, Afro-America, Asia, and Australia (Feld 1976, 293-294). By the 1970s, ethnomusicologists had already begun collaborating with filmmakers (295). For example, Feld notes that, "In France, the work of major ethnomusicologists has been represented in several films published by the Centre National de la Recherche Scientifique, in conjunction with the Comité du Film Ethnographique of the Musée de l'Homme" (296). These productions include works by Gilbert Rouget, Jean Rouch, and Hugo Zemp (296). For example, two films made in collaboration between anthropologist Rouget and filmmaker Rouch are: *Sortie de Novices de Sakpata* (1963) and *Batteries Dogon* (1964) (296). Whereas ethnomusicologist Zemp worked as a sound recordist with anthropologists Daniel and Christa deCoppet to create *'Are'Are Massina* (1979) (296).

As ciné-ethnomusicologist Michael B. MacDonald explains, however, “where ethnographic film theory and methods have developed, ethnomusicology has not followed suit” (2019a, 138). The exception, states MacDonald, is a small number of articles including Steven Feld’s pathbreaking “Ethnomusicology and Visual Communication” (1976), Hugo Zemp’s “Filming Music and Looking at Music Films” (1988), Jeff Todd Titon’s “Representation and Authority in Ethnographic Film/Video Production” (1992), and John Baily’s “The Art of the Fieldwork Movie” (2009) that lays out an approach to ethnomusicological film (138). The fact is that, although ethnomusicologists commonly document work in the field, they are not usually trained filmmakers. Benjamin J. Harbert (2018), proposes that ciné-ethnomusicologists might consider collaborating with independent filmmakers who have already done the work of producing films about music and the people that make it. Harbert also suggests a “critical cinema of music” that is made of scholars that have both the technical abilities and specialization to produce films that are informed by cinematic techniques but whose primary function is musicological inquiry (2018, 246; see also MacDonald 2019a, 141). Michael B. MacDonald works from such a position of specialization, creating films like *Unspittable* (2019b) and *Ark: A Return to Robson Valley* (2022).¹¹ MacDonald’s work considers “long-form ethnographic music video [as] an experimental method to mix ethnographic film and music video production” (2020, 115). In recent years, there has been a rise in interest in film work in ethnomusicology, as evidenced by the creation of the new *Journal of Audiovisual Ethnomusicology* (JAVEM).

¹¹ For MacDonald’s films check out: <https://www.michaelbmacdonaldfilms.ca/films> See also his book *Cineworlding: Scenes of Cinematic Research-Creation* (forthcoming 2023)

How Ciné-ethnomusicology Has Informed This Project

While I am not an ethnomusicologist, my research and methodology are informed by work done in this field. Most of my experience with filmmaking and associated techniques and analytical methods were developed while studying under and working as a research assistant for MacDonald. Additionally, *Trans*Vocal* can be understood as being both autoethnographic, in that it represents my experience and challenges societal binary narratives of transition, and musicological, in that it functions as a poetic analysis of vocal transition on testosterone.

Over the years, ethnographers have developed a series of methods and techniques for documenting fieldwork. This section describes a few of these methods and the reasons why I did or did not apply them in the creation of *Trans*Vocal*. I begin with a discussion of the “participant camera” and “cine-eye.” Then I explain how musical sequences have typically been captured in the field and my reasons for choosing a different style to depict my transition. Finally, I conclude with a discussion of the use of voiceover and text in ethnographic and documentary film.

By developing a room where participants could see the events just filmed played back on a camera, as a sort of second spectator to the videographer, Flaherty invented the concept of “participant observation” in documentary film (Rouch [1975] 2009, 82).¹² This type of camerawork and the potential of “feedback” by the participants was named “the participant camera” by Luc de Heusch (82). Through filming myself in this project, I bring an interesting twist to the concept of the “participant camera,” where everything down to the angle I am being shot at and the clips of me ultimately being shown within the context of the film have all been staged and selected by me. Jean Rouch writes about the risks of ethnographic film work stating

¹² This is not to be confused with the method of participant observation fieldwork popularized in anthropology by Bronislaw Malinowski and Franz Boaz among others in the early 20th century.

that “every time a film is shot, privacy is violated” ([1975] 2009, 88). By filming this entire process by myself, I feel like I have bypassed this privacy violation as there was no one encroaching on my space at any point and all the information provided within the film and this accompanying thesis was given enthusiastically. Furthermore, by doing all of the work myself I had full control over how my experience of transition was depicted. While I cannot control how the film is received by others, it is a powerful, albeit vulnerable, action for me to make and watch a film that depicts my experiences of transition properly to myself. At times, I have found working on *Trans*Vocal* to be a taxing job. Listening to my voice at various stages of transformation is difficult for several reasons. Firstly, trying to represent those feelings requires a certain level of creativity that I do not always find to be accessible. Secondly, the creation of this film posed a certain risk to my mental health as it required me to repeatedly listen to my voice transitioning, which causes me to experience a degree of vocal dysphoria. This is a vulnerable exercise, so just as Chris Vargas and Eric A. Stanley state in regard to their work on the films *Homotopia* (2007) and *Criminal Queers* (2013), I have tried to let the film evolve and transform organically as opposed to trying to force a clean, finished product (Stanley, Tsang, and Vargas 2013, 67).

Dziga Vertov, on the other hand, invented the concept of the “cine-eye,” which foregrounds the ethos of *cinéma vérité* and can be understood as all of the techniques of filming, all the moving pictures, and all the methods employed, without exception, in the capturing of reality (Rouch [1975] 2009, 83). As Jean Rouch writes, “today, all direct-cinema cameramen [sic] know how to walk with their cameras, which have thus become the living cameras, the “cine-eye” of Vertov” (89). This technique allows the videographer to flexibly move around and

with their subject, allowing the camera to spontaneously be drawn in by different features of the performance. In this way, the camera operator and the camera become one.

In my film, it was virtually impossible to recreate this “walk-with-the-camera” technique, except by utilizing some creative camera hacks. For example, I would place the iPhone in front of a mirror to allow me to see what the camera was seeing and orientate my body within view of the camera. As noted above, the COVID-19 pandemic was a primary factor in my decision to do all the film work myself, and this posed limitations. For example, there are some shots, particularly of my body, that I wish could have been more flowing, but which necessarily had to be stationary. As Hugo Zemp writes “research footage is not a film” (1988, 422). Since I had few methods of being behind and in front of the camera at once, much of my weekly documentation was better suited to analysis than inclusion in a film. Further, it would have been nice to capture a variety of close ups and angles synchronous with the audio recordings. Instead of focusing on documenting my performance, I found moments in my everyday life that evoked my felt experience of singing with transitioning vocals. Often the thought of filming a situation would be spontaneous and I would quickly pull out my phone to capture whatever was occurring without much thought as to how exactly the shot would work within the film.

Within ethnomusicological film it has become common practice to present “musical sequences in unbroken continuous shots without cutaways,” as can be seen in the work of Zemp (Feld 2014, 462). This technique is meant to allow musicians the space and time to sound and explain their craft in their own ways and have the audience hear and see the entire musical performance unfold (462-463). For example, in Zemp’s film *Yootzing and Yodelling* (1986b), there is a three-minute shot of a herdsman using yodeling to call in his cattle to the stable (Zemp 1988, 398). Similarly, in *The Wedding of Susanna and Josef* (1986a), there is a four-minute

scene of bell ringers at a wedding that follows them from entrance to exit (Zemp 1988, 398). To make my film in the style of Hugo Zemp, I would (absurdly) have had to take all my improvisations over seven and a half months, in their entirety, and play them one after the other. Instead, I have chosen to cut up my performances and mix them together to create a new, composite performance. The music is composed of fragments of audio that were collected during the project and then reassembled in a sort of improvisatory score for the film.

The music for the film was mostly composed prior to the addition of visuals, as is done in a typical music video. I began the compositional process by selecting a vocal groove that I found interesting from the first month's improvisations. As the minutes of the film pass by, sounds from the subsequent months enter the score, and samples from the earlier months diminish and fragment. The process is gradual and amorphous so that the viewer will likely not be able to tell when exactly my voice from a new month joins. The piece concludes on my solo voice to link back to the introduction and remind the listener that all of those voices heard previously are collectively part of the one voice.

The structure of my musical composition more or less follows a typical contemporary music format, with sections that could be considered verse, pre-chorus, and chorus. It is likely my more recent training in contemporary genres that influenced this song structure. However, I also wanted to create a sense of recurrence but required moments of change in the music and thus, this structure occurred organically, without my deliberate choice. The use of layering and looping in the composition is intentional. I overlaid the recordings from different months, effectively harmonizing with myself through time. To complicate notions of linearity, when pre-choruses and choruses reoccur, parts are swapped amongst the months, meaning that the listener is always listening to a unique chorus. It is impossible for these harmonisations to be perfectly in

sync or in tune, as my improvisations were not recorded while listening to previous sessions, but that is not my intention. The heterophonic texture retains the individuality of each part and honours the vocal context in which it was recorded. I find the listening experience pleasurable and resonant with the non-linearity of my vocal transition, having my voice looping back on itself from day to day or week to week.

The music begins with a straightforward jazzy improvisation that includes some spoken interjections but that gradually becomes noisier and more rhythmic. This increased timbral and rhythmic density denotes my diversifying vocal texture and my discovery of creative improvisation. In the first half of the film, I include spoken interjections to express my feelings at different stages of transition and emphasize specific sonic elements, such as breaks. In addition, they indicate that my transition also affected my speaking voice. In the second half of the film, these spoken cues give way to improvised non-idiomatic sounds, indicating my discovery of creative improvisation through Kathy Kennedy and Gabriel Dharmoo in November 2021. In response to hearing their experimental vocalizing, I added more textural sounds to my improvisations in the months following. Because I only included recordings up to the end of January 2022, however, the film does not represent the far more adventurous approach to improvisation that I later developed. These tentative steps towards vocal freedom sound the vulnerability I experienced during these early months of my transition.

I was firm in my decision not to include any voiceover description and very little textual information to supplement or contextualize the audience's experience of *Trans*Vocal*. Steven Feld (1976) argues that accompanying, explanatory academic papers better serve ethnographic films (300). While I do not entirely agree with Feld's argument that having textual material directly in the film "ruins the filmic quality" (300), I have chosen a music video format to allow

audience members space to draw their own meanings. As far as voice over goes, Rouch argues that “it is not possible to transmit two auditory messages simultaneously,” as one message will be sacrificed for the understanding of the other ([1975] 2009, 91). The purpose of this project was to experience my voice singing through a highly gendered transition, so I purposely chose to leave that voice as the only aural element. I was more interested in evoking certain feelings than providing description. Rouch states that films can only open the door to knowledge of the subject being captured ([1975] 2009, 93). I hope that my film provides such an open door to knowledge of non-binary transition and the singing voice that can be further supplemented by the information in this thesis alongside work by other trans* individuals.

4.2 Trans* Film and Video

A notable increase in queer characters and stories in the 1990s marked a radical new paradigm in film known as New Queer Cinema (Rich 2013). Since the release of *Paris is Burning* in 1990 audiences have been opening up to receiving queer love stories (Romano 2021, 8). Trans* characters whose role lies beyond comedic relief or murderous villain, have only recently received positive, or any, reception with *Orange is the New Black* actress Laverne Cox appearing on the cover of *TIME Magazine* in 2014, featuring the title “The Transgender Tipping Point” (Romano 2021, 8-9). However, phrases like “transgender tipping point” fail to acknowledge the meaningful work of trans* artists, activists, and organizers that have been working with the medium of film since the 1990s (Horak 2021, 511). Further, it fails to recognize the long history of gender variant cinema that dates back to the late 1800s (Horak 2017)¹³. Lesbian film critic B.

¹³ In this article, *trans* and *gender variant* are two identity categories imposed on artists of the past that may not identify in this way, as Horak recognizes. However, it is important to note that there have been artists, film crew, and filmmakers who play with gender presentation, through acts like cross-dressing and assigning roles to people of a different sex than their character, since the early days of film. This is not a new phenomenon that occurred in the 1990s.

Ruby Rich and film scholar Akkadia Ford (2019) have proposed that an innovative trans cinema occurred following New Queer Cinema in the 21st century. By contrast, transgender film scholar Laura Horak argues that a creative and original trans-specific cinema movement actually emerged at the same time as New Queer Cinema in the 1990s, marked by the creation of three trans film festivals started during this time in Toronto, London, and San Francisco (Horak 2021, 512). These festivals carved out a space that overlapped but was also separate from the “queer” spaces of the lesbian and gay festivals (512). This distinction helped to create another public sphere that would provide “an opportunity for transgender community formation and artistic support” (512). Despite the significant amount of trans-made cinema produced and shown at this time, it is important to note the lack of recognition of this work in both the queer film and academic communities (534). While New Queer Cinema is notable for its “stylish 35mm aesthetics and art cinema sensibilities,” the trans films are noticeably rougher with their 16mm DIY aesthetics and a penchant for talking-head documentaries (534). Horak notes that this stylistic difference may, in part, account for the lack of scholarly attention given to these works but ultimately argues that “the lack of attention to these films and festivals demonstrates how “trans” continues to get short shrift in queer film scholarship” (534). This section will serve to demonstrate how *Trans*Vocal* was informed by and utilizes multiple techniques employed by trans* filmmakers as well as how it breaks current trends found in much contemporary trans* film.

Trans* Film and Videos That Inspired *Trans*Vocal*

One trans* film that I draw inspiration from is *Change Over Time* (2013), an animated experimental personal documentary created and directed by Ewan Duarte. The film uses an impressionistic and artistic approach to convey the filmmaker’s emotional experiences and

transformation during his first year on testosterone (Duarte 2013). Duarte's film is seven minutes in length and uses techniques such as overlays, fades, stop-motion with digital animations, and time-lapse photography. Duarte uses his voice to count the days, weeks, and months, giving a chronological sense of time passing and allowing an auditory demonstration of the changes occurring. Duarte represents his change through movement by walking forward along a rainbow path. Before watching this film, I too selected images of walking along pathways to depict the movement that I experienced during transition. However, I found myself increasingly reflective throughout my transition. My experiences with my voice, before testosterone, coloured my experience of listening during my vocal transition and I represent this reflection through different directions of movement. Transition is not a straightforward process.

Like me, Duarte (2013) discusses transition as a sort of liminal space where there is no specific completion point and instead views the process as a sort of integration, with both “liminality” and “becoming” being used repeatedly in the film. I have found the concepts of “before” and “after” transition to be quite troubling, as I find myself in a constant state of flux and transformation that is not exclusive to, but includes, my transition. Thus, I have purposely chosen a format for *Trans*Vocal* that confuses where the beginning and end of transition happens in order to avoid constructing a stable image of transgender that passes from one binary gender to another. As Chris Vargas explains, trans* people can experience gender in a variety of ways (Stanley, Tsang, and Vargas 2013, 75). For some this might be a clear transition from one gender to another and for others this experience may be more fluid (75). My experience happens to be more fluid, so I chose a format that I thought would help to trouble the linear nature of film. Since there is no way to guarantee that my music video will be played on loop, I had to think of ways to at least complicate where the beginning, middle and end occur. For example, throughout

the film I make use of recurring sounds and images. Musically, I represented the recursive nature of transformation by playing recordings from various parts of my transition throughout the film. At any given point, for example, the audience might be listening to my voice from the earlier months of transition together with my voice from months six or seven. The same or similar shots also appear multiple times throughout the film, imbuing the film with a cyclical motion.

Akkadia Ford writes that trans films are marked by their emphasis on authorial experience and mediating reality and their use of polytemporality to better demonstrate the gender diversity and overlapping timelines present within trans* lives (2019, 60). Similarly, in *Trans*Vocal*, I depict my vocal transition alongside a number of other transitional experiences including my move from Edmonton to Ottawa. This line of thinking follows Jack Halberstam's (2005) acknowledgement that a queer life poses challenges that disrupt normative notions of time and life. It creates a unique path with its own temporal trajectory, that is a specifically queer "time and place". My own path through time was tricky to represent in *Trans*Vocal*. An experience of seven and a half months had to be compressed to just over seven minutes. Originally, I had planned a twenty-minute film in which I would put my experience on a sort of timeline. However, as my thoughts of how I wanted to portray my experience shifted, so did my perception of the role duration plays in an experiential film. I ended up choosing around seven minutes both to signify the number of months spent working on the project as well as to connect with other work by trans* individuals reflecting on their own transitions. These works include video clips by trans* creators on YouTube that average around seven minutes in length (Horak 2014, 574) as well as Duarte's *Change Over Time*.

YouTube has become one of the leading platforms for trans* media, especially in the form of vlogs. Documenting trans* lives in the form of "home videos" has been a common

practice since “amateur movie cameras and projectors became available to consumers in the 1920s” (Horak 2017, 12). Videos depicting transitions of AFAB trans* individuals on YouTube are one of the primary inspirations for the creation of *Trans*Vocal*. While there are many videos discussing the bodily changes of going on testosterone, the particular videos that I am referring to are the ones where the trans* individual sings with themselves during various points of their transition. Often this will take the form of a duet or side by side comparison, where the voice at different stages of transition can be heard and compared either simultaneously or consecutively. In an initial survey of content produced by trans* individuals on YouTube, I was unable to discover even a single video on the vocal transitions of non-binary individuals in song. I was able to find a few videos that dealt with transition as a non-binary, trans* person in general (Hardell 2017; Megemiko 2019) but never in the format of a song. All videos dealing with AFAB vocal transitions while singing documented the experiences of transgender men on regular testosterone dosages (Black 2018; DANE 2019, 2020; Finnce 2019; Lima 2019; MackMan 2017, 2019; Peck 2017; Phan 2020; Vince 2016). Only in the last year, have I begun to see videos documenting the vocal transitions of non-binary people in song (Andolin 2021).

Laura Horak writes that transition videos tend to be the most popular but also most controversial videos put out by trans* creators (2014, 573). Critics argue that the videos work to support the concept of only two genders and the notion of transition as a goal-oriented, linear process (574). While my film is inspired by trans* YouTubers, I have chosen to utilize different strategies to depict my own non-binary transition. Part of the motivation to create a film about my transition on testosterone, stems from the media discrepancy described above. This is likely in response to societal discussions about trans* experiences (at least in the queer community) opening up to greater understanding that an individual does not have to be a man to go on

testosterone. Therefore, greater medical access to testosterone by non-binary and other trans* individuals has led to more films and other media being created to represent those experiences. I also struggle with the overall format of these videos. There is a certain level of spectacle involved. By taking advantage of the testosterone-induced vocal change, the videos produce a quick-change effect that fails to account for the sometimes-excruciating waiting game that many individuals experience while looking and listening for change on a day-to-day basis during the course of testosterone treatment. In this way, the format of transition videos has problematic elements of the “before” and “after” and a teleological narrative of one “correct” trans experience. Hopefully, *Trans*Vocal* will make an excellent contribution to the work of all the trans* individuals discussed above and continue to push the boundaries for how one might choose to express their personal transition.

4.3 Trans*Vocal Shots

The shots for this film came about both spontaneously and after careful consideration. Some shots were chosen in the moment and consist of long sequence-shots of walking and driving along roads with a moving hand-held camera (shown in figure 7). I often used this type of shot to convey a sense of constant movement but with little change experienced in the visuals being depicted. The layout for these shots is always the same to convey the sense of monotony that accompanies waiting to hear, see, or feel some kind of change due to testosterone. Just like my reflections on my voice, if I look back, there are things along the road that surprised me and ultimately the scenery did change. There is a second reason behind the road shots in the car, which is to represent my transition from living in Edmonton to living in Ottawa. While it might not seem to affect my vocal journey, I find the cross-country eight-to-twelve-hour daily drives with stops in different cities along the route to be a strong metaphor for my transition journey.

This transition from a prairie city to the nation's capital, demonstrated in figure 8, is melded with my experience of transition. While there are many differences between Edmonton and Ottawa, they are both mid-size Canadian cities with many similarities. Likewise, while my voice may have changed there are aspects about my voice that are the same as prior to testosterone. I offer this as an alternative to the trans* narrative that desires the complete dismissal of the prior self, as depicted in films like *The Danish Girl* (2015). While this type of narrative certainly holds true for some individuals, I am certain that other trans* individuals will feel connection to my notions of *sameness*.

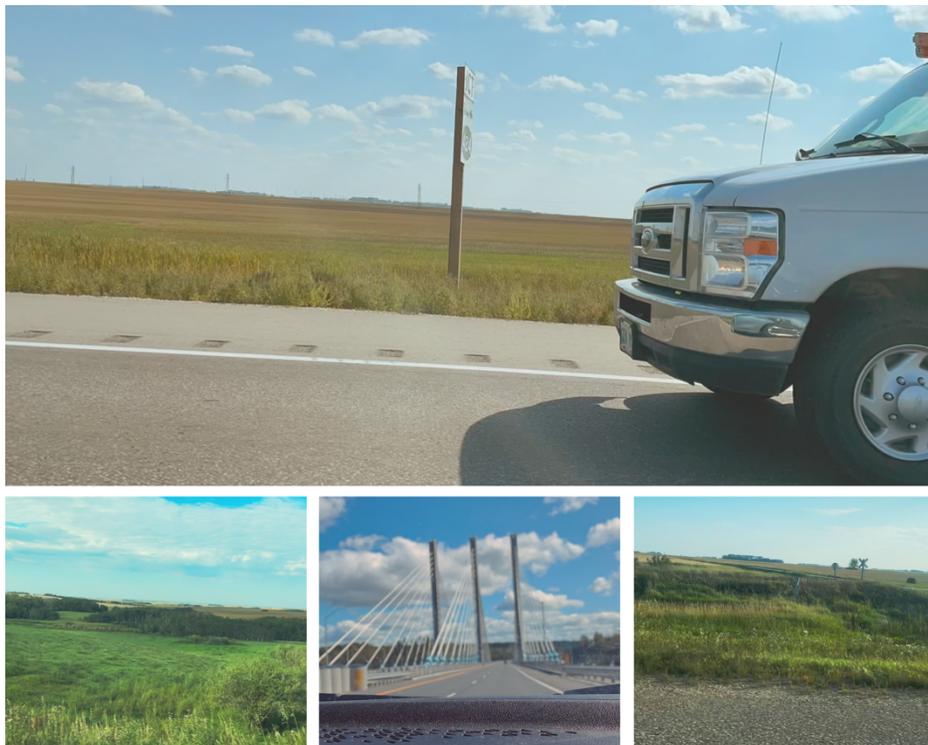


Figure 8 Pictures from the road between Edmonton and Ottawa, as seen in *Trans*Vocal*.

I also include closeups of my mouth and throat (shown in figure 9) to demonstrate where my vocal sounds originate. I thought it would be interesting to depict a misalignment between

what is heard and what is seen in these shots, so the audio and video do not match up in these scenes. This is meant to be a two-fold experience where both the feeling of internal dysphoria and the confusion that accompanies being misgendered are represented. As Western audiences are accustomed to clips where the shots and audio are synchronized, I expect that viewers might attempt to make them match up in their mind and potentially be frustrated to find that they do not. It is equally interesting to notice the moments when the images and sounds partially synchronize. While the shots were filmed without taking into consideration the specific audio that they would accompany, I did intentionally choose clips where my mouth looked as though it might be producing the accompanying sounds. This choice is intended to instill the idea of something in the moment being slightly off but not being able to point out what exactly is “wrong”. Finally, I use a lens ball in one of the mouth scenes to distort the listener’s sense of reality. Just as my mouth appears upside-down through an enlarging lens, captured on an iPhone, my voice is captured with a microphone and then edited and put into a context that colours it in a particular way.



Figure 9 Pictures of Meg LaRose's throat and mouth, as seen in *Trans*Vocal*.

I include shots of my body, as my body cannot be removed from my personal experience of transition. In *Change Over Time*, Duarte chooses not to depict himself using testosterone during the film and instead opts to display medical supplies as obscured backgrounds that he merges with images of nature “suggestive of healing and new growth [that] holds ‘reparative’ (Sedgwick 2003) value as a cinematic strategy” (Ford 2019, 67). I chose to include a shot of me putting on testosterone gel because I wanted to include the medication that made this journey possible. The act of putting on testosterone (depicted in figure 10, *top*) has become an ingrained part of my daily life and cannot be divorced from my experience of transition. Additionally, I used shots of myself dancing and doing hand waves, both broken and connected. My intention is to give a visual representation of what I am hearing in my transitioning voice. As a former competitive dancer, I am familiar with using my body to connect with and imitate music. The

hand waves (shown in figure 10, *bottom*) are used to illustrate the connection and flow that is idealized for the voice, as all the breakpoints are there but there can be a smooth flow between them. The broken-up version of the hand wave, segmented into knuckle, fingers, and wrists, is a visual depiction of the newfound breaks that I was experiencing in my voice during the transition. I hope, as with hand waves, I can find moments where both broken and flowing vocals can be interesting and add new texture to my performance.



Figure 10 Pictures of Meg LaRose pumping testosterone gel and doing hand waves, as seen in *Trans*Vocal*.

In *Trans*Vocal*, I throw and catch a flashing ball on the back of my hand to bring about a sense of excitement, spark and play (figure 11). I chose a flashing ball to depict the excitement felt during transition when I noticed that new timbres were entering my voice. There is a sense of child-like wonder and amazement that I associate with this act of playing with the ball. The

throwing and catching of the ball illustrates the agility and stability that is or is not present at any given moment of transition. Most often, I catch the ball on the back of my hand representing moments where my voice was able to securely and cleanly sing the notes I had intended. While *Trans*Vocal* has many shots used to depict various types of instability, the ball is one of the few showing moments of stability. I also show a clip of the ball wobbling across the top of my hand, but ultimately, I catch it. I use this shot to demonstrate how even in times of stability my voice can have a moment of uncertainty and that moment can be cool and satisfying in its own way.



Figure 11 Picture of flashing ball caught on backside of hand, as seen in *Trans*Vocal*.

Circles are drawn over the course of the film to represent changes in vocal quality. In part, the circle represents a note, and not a specific note but rather an idea of my whole voice encapsulated in one midrange note. The circle expands with changing colours and gradients

depending on the vocal quality present at a given moment. I am drawn to this circle image for a couple of other reasons. Circles are used to depict notes in Western music notation and the image of the whole note resonates with me because it is open and waiting to be filled with sound. Circles are also associated with breath. Breath is an integral part of singing that can take up a good portion of one's practice. A voice cannot sound or sustain without proper breath support. I associate breathing with circles as my childhood singing teacher would often use balloons and a breathing ball (Hoberman Sphere) to demonstrate belly breathing technique. Throughout *Trans*Vocal*, two of these circle drawings are completed, demonstrated by figure 12. The circle drawing with harsher lines represents an understanding of timbral change from earlier in my vocal transition, around August to September of 2021. At this point the resonance spaces are more broken up, thus the harsher lines splitting up the layers of the circle. The second circle drawing depicts the layers of the circle as more overlapping and blended to represent timbral changes experienced later in my vocal journey, around November of 2021, when it began to be easier to blend the resonance areas again.



Figure 12 Picture of two circle drawings, as seen in *Trans*Vocal*. *Left*, shows a circle drawing depicting changes in the early stages of transition. *Right*, shows a circle drawing depicting changes in the later stages.

I blew up a variety of coloured balloons to represent particular facets of transition with my voice in song. Breath support is one of the first and most important techniques that you learn in Western singing lessons. Breath support allows the vocalist to sing longer phrases and have a greater dynamic range. These images, shown in figure 13, also represent both the material stretching of my vocal folds during the course of testosterone treatment and the resulting expansion that I hear in my voice. It sounds fuller with lower tones and added “brown” colours. I also felt that the fatigue present in my throat and neck due to blowing up the balloons was akin to the stress and fatigue I experienced when straining to hit high notes.



Figure 13 Picture of Meg LaRose blowing up a balloon, as seen in *Trans*Vocal*.

If balloons serve as a relatable metaphor for the transitioning voice, bubbles represent the sounds of vocal instability. They also illustrate reparative aspects of my transition. Bursting bubbles gives me the same feeling I get when attempting to sing a note, only to have it rattle on and off the pitch or crack in the breaks between resonance areas. On the other hand, blowing bubbles in water is a strengthening technique that helps singers to control the airflow through the vocal folds. Further, I would like to highlight my use of milk in these shots, depicted in figure 14. It is a common saying amongst vocalists not to drink milk before a performance. This is due to the shared knowledge that the proteins of the milk will cling to the vocal folds making it more difficult for the vocal folds to resonate, consequently making it more difficult to sing. There is a “gummy” feeling in the voice when I drink milk before singing that feels like what I experience in my “puberty voice.”



Figure 14 Picture of Meg LaRose blowing bubbles in milk, as seen in *Trans*Vocal*.

I also include some shots of me scraping peanut butter and honey over toast. I chose these foods in part because this is a common breakfast item for me, which emphasizes a narrative of normalcy within the film. Peanut butter was used specifically for its sticky nature and how easily it spreads once it is warmed up a bit. Likewise, the voice can be difficult and rough at times but when the proper warmup is applied it becomes more malleable and easier to use. I chose toast for the sound of the knife scraping across the top of it. This sound I find to be gravelly and rough, akin to sounds I have heard in my own voice along this journey. Finally, I selected honey because, while it is still sticky like the peanut butter, it is also clear and sweet. This is meant to represent the times when I was struggling with my voice but was still excited by the changes I was hearing. This gritty and sticky sound quality, represented by the peanut butter and honey on toast, was present during the “puberty voice” moments of my transition (figure 15).



Figure 15 Picture of Meg LaRose spreading peanut butter and honey on toast, as seen in *Trans*Vocal*.

Fire in *Trans*Vocal* represents a sort of reparative state. Campfires, for me, have always been times of fun, laughter, connectedness and song. These shots, seen in figure 16, were taken throughout the fall of 2022 during a couple of night excursions with my roommates. A sense of warmth comes from the heat and glow of the fire that keeps me and my friends warm even as the night gets increasingly colder. There is also something about fire being a light in the darkness that conveys a sense of comfort, just as a nightlight might bring comfort to someone who is afraid of the dark. A sense of connection comes from the people surrounding the fire, who you do not see in the film, but who are there constantly supporting me whenever I need it. This concept of support is integral to the reparative stages of my transition, where support was necessary for both my vocal and emotional health. Finally, for me, the fire brings up memories of dancing, chatting, and singing around a fire with friends that evoke feelings of playfulness and enjoyment.



Figure 16 Picture of campfire blazing, as seen in *Trans*Vocal*.

Nin jiom has a multipurpose role within the film as a representative of past experiences and as a reference for my felt experiences of the voice. Nin jiom, shown in figure 17, is a Chinese herbal cough syrup that is the texture and colour of molasses and provides relief for sore throats and coughs. This is a common remedy recommended to vocalists by other vocalists in Alberta for everything from a common cold to laryngitis. From a young age, I would use nin jiom if I got a cold during competition season to protect my throat and let me sing without pain. For me, including nin jiom in my film is both nostalgic and a symbol of repair and comfort. Further, I thought the sticky, “gummy” texture of nin jiom was a good representation again for the “gummy” feelings that I experienced in my voice. The fact that nin jiom is brown also helped to tie in some of my thoughts about how my voice in transition was coloured. I dripped the syrup

down a spoon to demonstrate my experience of the temporality of change, as being slow, drawn out, and stretched until something finally snaps, and I start the process again.



Figure 17 Picture of nin jiom dripping off a spoon, as seen in *Trans*Vocal*.

4.4 Conclusion

Autoethnographic films can engage with social and political issues that affect marginalized communities and generate opportunities for dialogue (Romano 2021, 32). In *Trans*Vocal*, nothing is clearly stated or explained about my personal experience with transition or about transition in general. In fact, without the title, I do not think that it would be clear that this film is about transition. I have done this intentionally to allow people of various backgrounds to connect to the film in different ways. The autoethnographer hopes that audiences will be able to generate meaning and understanding in their own lives through interacting with the autoethnographic work (Spry 2011, 126). While I made *Trans*Vocal* for myself, I hope that within the trans*

community it brings some representation to forms of transition that are beyond binary trans experience. Additionally, I hope that this film helps to expand the binary notions of transition to include other trans* experience and potentially allow for further connection and understanding amongst people from a variety of backgrounds.

Chapter 5: Conclusion

“‘Men’ and ‘women’ are political categories, and not natural ‘facts’” (Butler 2002, 147). Butler references French feminist theorist Monique Wittig, stating that “we are compelled in our bodies and our minds to correspond, feature by feature, with the idea of nature that has been established for us” (147). This thesis aims to problematize society’s language and listening practices surrounding gender, voice, and transition as well as expand our understanding of what transition can look and sound like. In chapter 2, I argue that the voice operates as a primary reference in the supposed attribution of gender. Even when an individual is visually presenting a gender, the perceived vocal presentation will take precedence over the visual presentation. I explain that this misattribution is due to a few assumptions about the voice, including that it leads to knowledge of the vocalizer and that it is indicative of the body. As discussed, people have varying chromosome and hormone situations that lead to unique types of sounding; therefore, it is unreasonable to assume that by listening we are able to uncover definitive information about the vocalist. The second half of the chapter details how such gendered assumptions of the voice leak into both vocal pedagogy and narratives surrounding transition. I do this to help the reader understand the narratives that I am grappling with while going through my own transition, which is detailed in chapter 3. Here, I use my experience of my transitioning voice to problematize the narratives discussed in chapter 2 and demonstrate why the way we deal with and listen to voices needs to expand to include other forms of experience. Chapter 4 describes how I translated my experience of transition into an experimental music video. Through the process of creating *Trans*Vocal*, I challenged my own conceptions of what transition could look and sound like and came to understand that listening to the voice can be a multisensory experience. Finally, through this thesis, I learned that, for myself, transition was not necessarily exclusive to my experience of

being a trans* individual but rather, a natural part of my overall experience of growth and change. While I began my journey attempting to listen for gender, I discovered that no sounds are inherently gendered. It is up to us to challenge our listening practices and ultimately give care to others as well as ourselves. Here, I suggest some strategies of care through alternative vocal pedagogy, improvisation, and expanded listening.

5.1 Call For Change in Vocal Pedagogy

In light of what we have learned about the transitioning voice, we might ask: What does a man's voice sound like? A woman's voice? What can someone who is non-binary sound like? What does a "good" voice sound like? AND what makes a voice sound "bad"? Typically, the expectations placed upon the voices of transitioning singers only deal with binary vocal norms and result in practices that do not give care to this altered and transforming area of expression. We need a vocal pedagogy that accounts for the material differences and particular needs of transitioning voices. It is important to note the fragility of the voice in transition. It is often condemned as sounding "bad" due to the breaks and general vocal fry that accompany transition. Just like any other muscle in the body when it is stretched and grows, the voice requires a certain level of care during this period of transformation. However, I argue that this care should not include exclusion and shaming of the voice for its non-normative sounding, but instead consider how it can sound safely. I call for a reconceptualization of "good" sounding voices with the only requirement being that the vocal soundings do not cause harm to the voice. As a new physical space free of preconceptions, AFAB transitioning voices can serve as a site to reimagine gendered vocal norms and reconceptualize what it means to have a "good" sounding voice.

I am not alone in this call to listen to voices, specifically trans* voices, differently. Music scholar, Gerald Gurss (2018), offers some tools for creating safe spaces for trans* voices within

vocal practice, this includes gender-inclusive language and vocal exercises to potentially aid in the transitions of trans* vocalists. Their work provides a choral-centered look at trans* voices and transition that presents some structured practices for dealing with the differing materiality of trans* voices. While I find this practice potentially problematic in its continuation of Western vocal values, Gurss does attempt to expand these practices and give care to trans* voices and thus, can be a good model for those wanting to partake in that musical tradition. Holly Patch and Tomke König take a phenomenological approach to discussing voice as an embodied and material experience and “explore the “material efficacy” of trans* vocality and what it means politically that these embodied voices are materializing” (2018, 37). Like me, they discuss the importance of the materiality of the voice. On the other hand, Patch and König (2018) put a greater emphasis on the affective nature of the voice, focusing on adding weight to the performative aspects of gender in the voice and taking those *seriously*, as opposed to challenging our listening and labelling practices. David Azul and Lisa Quoresimo’s (2022) work details a few methods for approaching vocal pedagogy with gender diverse individuals, which suggests that educators and professionals working with trans* vocalists should prepare by doing research on trans* individuals and their potential needs, but should also approach such situations as unique and offer individualized care. Their work scrutinizes theoretical frameworks that have been applied to gender and the voice, such as biological determinism and the theory of doing gender (2022, 136-37). Furthermore, Azul and Quoresimo consider how “both biophysiological forces and speaker or singer voice use practices contribute to the communication of gender in vocal encounters,” effectively acknowledging the voice as collective experience dependent on many factors (2022, 137). Finally, Valerie Accetta, Head of Musical Theatre at the University of Alabama, offers Estill Voice Training (EVT) as a possible foundation for inclusive voice

training, as she argues that, at its core, EVT is free of aesthetic bias (2022, 200). In my own practice, I consider creative improvisation as one technique that might help singers to express and value these sounds of transition.

5.2 Creative Improvisation

Narratives surrounding the vocal transitions of AFAB vocalists on testosterone typically lean towards the negative, with descriptions of change being characterized as “loss of vocal ability” due to experiences of decreased range and dynamic ability as well as changes in tonality. In contrast to this characterization of “loss,” I argue that the abilities of the voice have simply changed. Creative improvisation appeals to me as a site to explore diverse vocalities due to its association with freedom and through its embrace of any possible sound the voice can make. However, I must reiterate that I mean this as an *individual* practice. AFAB musicians have been regularly subjected to gender dynamics within improvising ensembles in which the “musical “voice” was rendered somehow inappropriate or was overwhelmed and could not emerge or be heard, or in which the dynamics of turn-taking seemed to be strenuously competitive or masculinized and to exclude other modes of musical mutuality, relation, or being” (Born 2017, 54). Despite this history, I have found in my own practice that creative improvisation provides a potential space for non-gendered vocalisations that may provide a certain level of care for nonbinary individuals experiencing vocal gender dysphoria.

Throughout this thesis, I describe the sounds of creative improvisation as being potentially “alien” or “monstrous” (as positive indicators of freedom from convention), which can hardly describe the sounds being made in *Trans*Vocal*. I was only introduced to creative improvisation in late October of 2021, more than halfway through this study, and slowly began experimenting with non-idiomatic sounds, which, as I note in chapter 4, is why more noise

sounds enter the mix in the latter half of the film. However, it was not until I met Christine Duncan in March of 2022, that I truly began to develop my current adventurous and weird improvisational palette of vocal techniques. Through this practice of creative improvisation, I have come to new understandings of my transitioning voice both in listening back to my voice during the time of this study and beyond. Creative improvisation gives me the opportunity to play in a space unmarked by gender, and this is gender affirming. Further, it gives me room to examine my own listening practices and reconceive of perceived gendered sounds as instead neutral sounds that are only later attributed with gender by the listener. When improvising, I feel free to explore sounds such as cracks, squeaks, and scrapes that are usually excluded from singing but that are produced by my transitioning voice. They are, as Tonelli (2016), following philosopher Jacques Ranciere, explains “policed” by listeners who receive them as unmusical, noisy, and unintelligible. By setting up a situation where there are fewer vocal expectations, we can open our mouths to a world of vocal possibilities including sounds that have been codified as either of the binary genders as well as sounds that are outside of gender embracing the “monstrous” and the “alien”.

As Matthew Sansom writes, “avant-garde practices which hover on the borders of sense and nonsense push at the limits of an established system, its rules and procedures” (2007, 11). Vocal improvisation is a potential space to explore the changing vocality of the transitioning voice and reimagine how these voices can sound. Instead of characterizing vocal transition in terms of loss, it could be reparative to reconceive of the breaks and squeaks that come along with this transitional period as a resource. By letting go of expectations for the voice, trans* singers can potentially rid themselves of a preoccupation “with the question of gender intelligibility but instead rather actively engage in creating the matter that is what they already are, vocal beings”

(Patch and König 2018, 24). Instead of perceiving such sounds as noise or as indicative of problems with the voice, perhaps we can begin to restructure our thinking and listening practices to understand them as available, valid, and interesting choices for self-expression.

5.3 Listening Practices

In her work on improvisation as an interdisciplinary research-creation methodology, Rebecca Caines quotes improviser Mattin explaining that “it is the place of the improviser to ‘go fragile’, exposing yourself to ‘unwanted situations that could break the foundations of your own security’” (2021, 325). Placing ourselves in a space to question our own listening practices, puts us in a fragile and vulnerable position where we can highlight the ways in which we have been unknowingly doing harm to ourselves and others. Caines writes, in agreement with anthropologist Dwight Conquergood, of a method of improvisation that requires enough respect for the *difference* of the other that we “question and make vulnerable [our] own a priori assumptions” (2021, 326). I wonder whether we can apply this kind of logic to assumptions of self, and in turn learn to respect our own difference? In improvising with the transitioning voice, rather than making assumptions about what such voices “should” sound like, we should understand that every voice is unique. Ethnomusicologist Tomie Hahn argues that “we use our past experiences as a baseline to compare new encounters”; thus, we judge our voices based on expectations that have become enculturated (2016, 149). Each of us listens from our positionality, limited by our own pool of knowledge. But we can work towards an expanded, critical listening positionality (Robinson 2020). As Azul and Quoresimo write, “we all (speakers, singers, listeners, professionals) need to actively contribute to engaging with each other in a culturally responsive manner and continuously ask for respect and be respectful of each other”

(2022, 139). Through recognizing the limitations of our own listening practices, we can begin to enact care for the vocalizer.

Eidsheim includes vocalizers in the act of meaning-making by acknowledging them as both singers and listeners, who take part in the production of sound as well as listening to that sound and responding to it (2019, 185). Just as the vocalizer is heard and interpreted by the listener, they are also listened to and reacted to by themselves. Through Eidsheim's practice of "the pause," discussed in chapter 2, we can begin to break down our preconceived notions of how the voice should sound and in turn, how those sounds should be labeled (2019, 183). While I cannot change how other listeners hear me, I believe that the potential in this practice lies in how we listen to ourselves. Through re-examining our language and listening practices we can stop policing the voice and begin to rid ourselves of the concepts of "good" and "normal" sounding. Then we can begin to reconstruct the narratives surrounding transition to include the experiences of people of differing trans* experience and open our ears to the unique soundings of others.

References

- Abitbol, Jean, and Patrick Abitbol. (1995) 2014. "The Larynx: A Hormonal Target." In *Diagnosis and Treatment of Voice Disorders*, edited by John S. Rubin, Robert Thayer Sataloff, and Gwen S. Korovin, 771-825. San Diego, CA: Plural Publishing, Inc.
- Accetta, Valerie. 2022. "Estill Voice Training and the Gender Non-Binary Singer." *Voice and Speech Review* 16, no. 2 (May 4): 200–207.
<https://doi.org/10.1080/23268263.2022.2033437>.
- Akiyama, Mitchell. 2015. "The Phonographic Memory: A History of Sound Recording in the Field". PhD diss., McGill University.
- Andolin, Jude. 2021. "Voice Change and Singing Comparison on Low Dose Testosterone (Non-Binary Transition)." Uploaded August 27, 2021. YouTube, 2:51.
<https://www.youtube.com/watch?v=s0xSAI3RocY>.
- Andrews, Moya L. (1995) 1999. "Voice and Psychosocial Dynamics: Gender Presentation." In *Manual of Voice Treatment: Pediatrics Through Geriatrics*, edited by Moya L. Andrews, 432-46. San Diego, CA: Singular Publishing Group.
- Apple, Fiona. 1999. "Paper Bag." Epic Records, Spotify, track 5 on *When the Pawn...*, 3:40.
- Azul, David. 2015. "Transmasculine People's Vocal Situations: A Critical Review of Gender-Related Discourses and Empirical Data." *International Journal of Language & Communication Disorders* 50, no. 1 (January-February): 31–47.
- Azul, David, and Lisa Quoresimo. 2022. "Best Practices for Vocal Pedagogy with Gender Diverse People." *Voice and Speech Review* 16, no. 2 (May 4): 130–43.
<https://doi.org/10.1080/23268263.2022.2042120>.
- Baily, John. 2009. "The Art of the 'Fieldwork Movie': 35 Years of Making Ethnomusicological Films." *Ethnomusicology Forum* 18, no. 1 (June): 55–64.
- Barthes, Roland. (1981) 2009. *The Grain of the Voice: Interviews 1962-1980*. Translated by Linda Coverdale. Evanston, IL: Northwestern University Press.
- Becklund-Freidenberg, Carol. 2002. "Working with Male-to-female Transgendered Clients: Clinical Considerations." *Contemporary Issues in Communication Science and Disorders* 29, (Spring): 43-58.
- Black, Joe. 2018. "FTM Singing Voice 21 Months on T (Wonderwall Cover)." Uploaded August 31, 2018. YouTube, 4:34. <https://www.youtube.com/watch?v=P5StkjrR9aA>.
- Boellstorff, Tom, Bonnie Nardi, Celia Pearce, and T.L. Taylor. 2012. *Ethnography and Virtual Worlds: A Handbook of Method*. Princeton University Press.

- Born, Georgina. 2017. "After Relational Aesthetics: Improvised Music, the Social, and (Re)Theorizing the Aesthetic." In *Improvisation and Social Aesthetics*, edited by Georgina Born, Eric Lewis, and Will Straw, 33-58. Durham: Duke University Press.
- Brailey, Sarah E. N. 2021. "Demystifying the Soprano Voice: An Introductory Guide for Composers." PhD diss., The University of Wisconsin-Madison.
- Bussell, Sevan. 2012. "Why We Use the Asterisk." *Candiussell Corner* (blog). Last modified October 2, 2012. Accessed July 5, 2022. candiussellcorner.blogspot.com/2012/10/why-we-use-asterisk-sevan.html.
- Butler, Judith. 2002. *Gender Trouble: Feminism and the Subversion of Identity*. New York: Routledge.
- Byrne, Lisa A., Georgia Dacakis, and Jacinta M. Douglas. 2003. "Self-Perceptions of Pragmatic Communication Abilities in Male-to-Female Transsexuals." *Advances in Speech Language Pathology* 5, no. 1: 15-25.
- Caines, Rebecca. 2021. "Fragile Devices: Improvisation as an Interdisciplinary Research Methodology." In *The Bloomsbury Handbook of Sonic Methodologies*, edited by Michael Bull and Marcel Cobussen, 325-36. New York: Bloomsbury Academic.
- Caines, Rebecca and Ajay Heble, eds. 2015. *The Improvisation Studies Reader: Spontaneous Acts*. New York: Routledge.
- Capecci, John, and Timothy Cage. 2012. *Living Proof: Telling Your Story to Make a Difference: Essential Skills for Advocates and Spokespersons*. Minneapolis, MN: Granville Circle Press.
- Carew, Lisa, Georgia Dacakis, and Jennifer Oates. 2007. "The Effectiveness of Oral Resonance Therapy on the Perception of Femininity of Voice in Male-to-Female Transsexuals." *Journal of Voice* 21, no. 5: 591–603. <https://doi.org/10.1016/j.jvoice.2006.05.005>.
- Carter, Julian. 2014. "Transition." *Transgender Studies Quarterly* 1, no. 1-2 (May): 26–27. <https://doi.org/10.1215/23289252-2400145>.
- Chao, Monika, and Julia R. S. Bursten. 2021. "Girl Talk: Understanding Negative Reactions to Female Vocal Fry." *Hypatia* 36, no. 1 (Winter): 42–59. <https://doi.org/10.1017/hyp.2020.55>.
- Constansis, Alexandros N. 2013. "The Female-to-Male (FTM) Singing Voice and Its Interaction with Queer Theory: Roles and Interdependency." *Transposition* 3, no. 3: 1-27. <https://doi.org/10.4000/transposition.353>.
- Constansis, Alexandros N., and Aglaia Foteinou. 2017. "Case Study of a Performance-Active

- Changing Trans* Male Singing Voice*” *Voice and Speech Review* 11, no. 2: 154-75.
<https://doi.org/10.1080/23268263.2017.1383555>.
- Coppet, Daniel de, and Christa de Coppet. 1979. *'Are'are Maasina*. 16 mm, color, 28 minutes.
 Sound by H. Zemp. Distribution: CNRS Images.
- Cosyns, Marjan, John Van Borsel, Katrien Wierckx, David Dedecker, Fleur Van de Peer, Time Daelman, Sofie Laenen, and Guy T'Sjoen. 2014. “Voice in Female-to-Male Transsexual Persons After Long-term Androgen Therapy.” *The Laryngoscope* 124, no. 6: 1409–14.
<https://doi.org/10.1002/lary.24480>.
- Dacakis, Georgia, Jennifer Oates, and Jacinta Douglas. 2012. “Beyond Voice: Perceptions of Gender in Male-to-Female Transsexuals.” *Current Opinion in Otolaryngology & Head and Neck Surgery* 20, no. 3: 165–70.
<http://dx.doi.org/10.1097/MOO.0b013e3283530f85>.
- Dacakis, Georgia. 2002. “The Role of Voice Therapy in Male-to-Female Transsexuals.” *Current Opinion in Otolaryngology & Head and Neck Surgery* 10, no. 3: 173-77.
- DANE. 2019. “Heaven - Troye Sivan Cover | LGBTQ music | Dane’s transition.” Uploaded March 19, 2019. YouTube, 2:26. <https://www.youtube.com/watch?v=FRBIPcLcJmY>.
- DANE. 2020. “Singing Voice on Testosterone Comparison (Transgender) Fast Car Cover |DANE.” Uploaded Sept. 29, 2020. YouTube, 2:52.
<https://www.youtube.com/watch?v=FSNgbjj9CFw>.
- Davies, Shelagh, and Joshua M. Goldberg. 2006a. “Clinical Aspects of Transgender Speech Feminization and Masculinization.” *The International Journal of Transgenderism* 9, no. 3-4: 167–96. <http://ijt.haworthpress.com>.
- Davies, Shelagh, and Joshua, Goldberg. 2006b. *Transgender Speech Feminization/Masculinization: Suggested Guidelines for BC Clinicians*. Saskatoon, Sask: crhc/csac & Transcend.
- Davies, Shelagh, Viktória G. Papp, and Christella Antoni. 2015. “Voice and Communication Change for Gender Nonconforming Individuals: Giving Voice to the Person Inside.” *The International Journal of Transgenderism* 16, no. 3: 117–59.
 doi:10.1080/15532739.2015.1075931.
- de Bruin, M. D., M. J. Coerts, and A. J. Greven. 2000. “Speech Therapy in the Management of Male-to-Female Transsexuals.” *Folia Phoniatica et Logopaedica* 52, no. 5: 220-27.
- de Bruin, Leon R. 2017. “Critical Autoethnography and Musical Improvisation: Reflections, Refractions and Twenty-First Century Dimensions.” In *Creative Selves/Creative Cultures: Critical Autoethnography, Performance, and Pedagogy*, edited by Stacy Holman Jones and Marc Pruyn, 229-46. Cham: Springer International Publishing.

- Delph-Janiurek, Tom. 1999. "Sounding Gender(ed): Vocal Performances in English University Teaching Spaces." *Gender, Place and Culture* 6, no. 2 (June): 137–53.
- Denzin, Norman K. 2013. *Interpretive Autoethnography*. 2nd Edition. Urbana-Champaign: University of Illinois Press.
- Denzin, Norman K. 2017. "A Manifesto for Performance Autoethnography." *International Review of Qualitative Research* 10, no. 1 (May): 44–45.
<https://doi-org.proxy.library.carleton.ca/10.1525/irqr.2017.10.1.44>.
- Duarte, Ewan. 2013. *Change Over Time*, directed by Ewan Duarte. Web, color, 7:14. United States: Ewan Duarte Productions. <https://vimeo.com/66785175>.
- Eidsheim, Nina Sun. 2015. *Sensing Sound: Singing and Listening as Vibrational Practice*. Durham, N.C.: Duke University Press.
- Eidsheim, Nina Sun. 2019. *The Race of Sound: Listening, Timbre, and Vocality in African American Music*. Durham, N.C.: Duke University Press.
- Ellis, Carolyn, Tony E. Adams, and Arthur P. Bochner. 2011. "Autoethnography: An Overview." *Historical Social Research / Historische Sozialforschung* 36, no. 4 (138): 273–90.
<http://www.jstor.org/stable/23032294>.
- Feld, Steve. 1976. "Ethnomusicology and Visual Communication." *Ethnomusicology* 20, no. 2: 293–325. <https://doi.org/10.2307/851020>.
- Feld, Steven. 2014. "Three Films by Hugo Zemp." *Visual Anthropology* 27, no. 5: 461–64.
[doi:10.1080/08949468.2014.950102](https://doi.org/10.1080/08949468.2014.950102).
- Finnce, Noah. 2019. "I SANG TRUCE BEFORE AND AFTER TESTOSTERONE | NOAHFINNCE" Uploaded Jun. 26, 2019. YouTube, 3:53.
<https://www.youtube.com/watch?v=vXlrEK5UFsE>.
- Ford, Akkadia. 2016. *Transliteracy and the Trans New Wave: Independent Trans Cinema Representation, Classification, Exhibition*. PhD diss., Southern Cross University.
- Ford, Akkadia. 2019. "Duration, Compression, Extension and Distortion of Time in Contemporary Transgender Cinema." *Somatechnics* 9, no. 1: 58–83.
- Gurss, Gerald Dorsey. 2018. "Translucent Voices: Creating Sound Pedagogy and Safe Spaces for Transgender Singers in the Choral Rehearsal." D.M.A., University of South Carolina.
<http://www.proquest.com/docview/2071314871/abstract/A1F832079D1D4B04PQ/1>.
- Hahn, Tomie, Louise Campbell, Lindsay Vogt, Simon Rose, George Blake, Catherine Lee,

- Sherrie Tucker, François Mouillot, Jovana Milović, and Pete Williams. 2016. "Banding Encounters: Embodied Practices in Improvisation". In *Negotiated Moments: Improvisation, Sound, and Subjectivity*, edited by Gillian Siddal and Ellen Waterman, 147-67. Durham: Duke University Press.
- Halberstam, Jack J. 2005. *In a Queer Time and Place: Transgender Bodies, Subcultural Lives*. New York: NYU Press.
- Hall, Stuart. 1996. "Introduction: Who Needs 'Identity'?" In *Questions of Cultural Identity*, edited by Stuart Hall and Paul du Gay, 1-17. New York: SAGE Publications Ltd.
- Hancock, Adrienne, Lindsey Colton, and Fiacre Douglas. 2014. "Intonation and Gender Perception: Applications for Transgender Speakers." *Journal of Voice* 28, no. 2 (March): 203–09. <https://doi.org/10.1016/j.jvoice.2013.08.009>.
- Hancock, Adrienne B., and Laura M. Garabedian. 2013. "Transgender Voice and Communication Treatment: A Retrospective Chart Review of 25 cases." *International Journal of Language & Communication Disorders* 48, no. 1:54–65. <http://dx.doi.org/10.1111/j.1460-6984.2012.00185.x>.
- Hancock, Adrienne, and Lauren Helenius. 2012. "Adolescent Male-to-Female Transgender Voice and Communication Therapy." *Journal of Communication Disorders* 45 (September), no. 5: 313–24. doi:10.1016/j.jcomdis.2012.06.008.
- Harbert, Benjamin J. 2018. *American Music Documentary: Five Case Studies of Ciné-Ethnomusicology*. Middletown, Connecticut: Wesleyan University Press.
- Hardell, Ash. 2017. "Testosterone? For Non-binary People?" Uploaded May 16, 2017. YouTube, 8:59. <https://www.youtube.com/watch?v=-KJP2264wJk>.
- Hardy, Teresa L.D., Jana M. Rieger, Kristopher Wells, and Carol A. Boliek. 2020. "Acoustic Predictors of Gender Attribution, Masculinity–Femininity, and Vocal Naturalness Ratings Amongst Transgender and Cisgender Speakers." *Journal of Voice* 34, no. 2 (March): 300.e11–300.e26. doi:10.1016/j.jvoice.2018.10.002.
- Hjorth, Larissa, Heather Horst, Anne Galloway, and Genevieve Bell. 2017. *The Routledge Companion to Digital Ethnography*. London: Routledge.
- Hooper, C. R. 1985. "Changing the Speech and Language of the Male to Female Transsexual Client: A Case Study." *Journal of the Kansas Speech-Language-Hearing Association* 25, no. 6.
- Hooper, Tom, director. 2015. *The Danish Girl*. Based on David Ebershoff, *The Danish Girl* (USA: Viking Press, 2000). United States: Universal Pictures. Film, 120 minutes.
- Horak, Laura. 2014. "Trans on YouTube: Intimacy, Visibility, Temporality." *Transgender*

- Studies Quarterly* 1, no. 4 (November): 572–85.
<https://doi-org.proxy.library.carleton.ca/10.1215/23289252-2815255>
- Horak, Laura. 2017. “Tracing the History of Trans and Gender Variant Filmmakers.” *Spectator: The University of Southern California Journal of Film & Television* 37, no. 2 (Fall): 9–20.
- Horak, Laura. 2021. “Representing Ourselves into Existence: The Cultural, Political, and Aesthetic Work of Transgender Film Festivals in 1990s.” In *The Oxford Handbook to Queer Cinema*, edited by Amy Villarejo and Ronald Gregg, 511–40. Oxford: Oxford University Press.
- Jacobs, Daiane D.S. 2017. “Vocal Body, Gender and Performance.” *Brazilian Journal of Presence Studies* 7, no. 2 (May/Aug): 359-81.
<http://dx.doi.org/10.1590/2237-266061818>.
- Jenssen, Toril. 2009. *Behind the Eye: Reflexive Methods in Culture Studies, Ethnographic Film, and Visual Media*. Translated and edited by Peter I. Crawford. Denmark: Intervention Press.
- Jones, Holman, Stacy Linn, Tony E. Adams, and Carolyn Ellis. 2013. *Handbook of Autoethnography*. Walnut Creek, California: Left Coast Press, Inc.
- Karpf, Anne. 2006. *The Human Voice: How This Extraordinary Instrument Reveals Essential Clues About Who We Are*. 1st U.S. edition. New York: Bloomsbury Pub.
- King, Judith B., D. Elise Lindstedt, Marilyn Jensen, and Molly Law. 1999. “Transgendered Voice: Considerations in Case History Management.” *Logopedics Phoniatrics Vocology* 24, no. 1: 14-18. doi: 10.1080/140154399434517.
- Ko, Sei Jin, Charles M Judd, and Irene V Blair. 2006. “What the Voice Reveals: Within- and Between-Category Stereotyping on the Basis of Voice.” *Personality and Social Psychology Bulletin* 32, no. 6 (June): 806–819. doi:10.1177/0146167206286627.
- Lima, Nicholas. 2019. “Transgender Man Duets with Himself.” Uploaded October 15, 2019. YouTube, 6:05. <https://www.youtube.com/watch?v=qOJCwZ0F6FA>.
- Loveless, Natalie. 2019. *How to Make Art at the End of the World: A Manifesto for Research Creation*. North Carolina: Duke University Press.
- Loveless, Natalie. 2020. *Knowings and Knots: Methodologies and Ecologies in Research-Creation*. Alberta: University of Alberta Press.
<https://www.uap.ualberta.ca/titles/956-9781772124859-knowings-and-knots>.
- MacDonald, Michael B. 2019a. “Benjamin J. Harbert. American Music Documentary: Five

- Case Studies of Ciné-Ethnomusicology.” *MUSICultures* 46, no. 2: 138-41.
<https://journals.lib.unb.ca/index.php/MC/article/view/30495>.
- MacDonald, Michael B. 2019b. *Unspittable*. Directed and produced by Michael B. MacDonald. In English. Web, color, 32 minutes. Distributed by Michael B. MacDonald Films, <https://www.michaelbmacdonaldfilms.ca>.
- MacDonald, Michael B. 2020. “Unspittable: Long-form Ethnographic Music Video as Cine-ethnomusicology Research-Creation.” *Visual Ethnography* 9, no. 1: 114-37.
- MacDonald, Michael B. 2022. *Ark: A Return to Robson Valley*. Directed and produced by Michael B. MacDonald. In English. Distributed by Michael B. MacDonald Films.
- MacDonald, Michael B. Forthcoming. *Cineworlding: Scenes of Cinematic Research-Creation*. New York: Bloomsbury.
- MackMan. 2017. “‘Stormy Weather’ (Cover) // Singing 9 Months on Testosterone.” Nov. 19, 2017. YouTube, 2:27. <https://www.youtube.com/watch?v=zmCF6scCWxw>.
- MackMan. 2019. “2 Years on Testosterone Singing Comparison // “Don't Let it Bring You Down” by Neil Young (Cover)” Uploaded Feb. 24, 2019. YouTube, 2:48. <https://www.youtube.com/watch?v=wAeViG77DtQ>.
- Malde, Melissa, Kurt-Alexander Zeller, and MaryJean Allen. 2013. *What Every Singer Needs to Know About the Body*. 2nd Edition. San Diego: Plural Publishing. <http://site.ebrary.com/id/10901599>.
- Megemiko. 2019. “Trans* / Non-Binary: Low Dose Testosterone for ~1 Year!” July 20, 2019. YouTube, 19:13. <https://www.youtube.com/watch?v=qe4VAvr35mY>.
- Meyer, Kylie, and Rosalind Willis. 2019. “Looking Back to Move Forward: The Value of Reflexive Journaling for Novice Researchers.” *Journal of Gerontological Social Work* 62, no. 5 (July): 578–85. doi:10.1080/01634372.2018.1559906.
- Mészáros, Krisztina, Lajos Csokonai Vitéz, István Szabolcs, Miklós Góth, László Kovács, Zoltán Görömbei, and Tamás Hacki. 2005. “Efficacy of Conservative Voice Treatment in Male-to-Female Transsexuals.” *Folia Phoniatica et Logopaedica* 57, no. 2: 111-18. doi:10.1159/000083572.
- Miller, Richard. 2000. *Training Soprano Voices*. New York: Oxford University Press.
- Neumann, K., and Cornelia Welzel. 2004. “The Importance of the Voice in Male-to-Female Transsexualism.” *Journal of Voice* 18, no. 1 (March): 153-67. doi:10.1016/S0892-1997(03)00084-5.

- Oates, Jennifer M., and Georgia Dacakis. 1983. "Speech Pathology Considerations in the Management of Transsexualism: A Review." *British Journal of Disorders of Communication* 18, no. 3: 139-51. doi: 10.3109/13682828309012237.
- Oates, Jennifer M., and Georgia Dacakis. 1997. "Voice Change in Transsexuals." *Venereology* 10, no. 3: 178-87.
- Ohala, John. 1994. "The Frequency Code Underlies the Sound-Symbolic Use of Voice Pitch." In *Sound Symbolism*, edited by Leanne Hinton, Johanna Nichols, and John J. Ohala, 325-47. Cambridge, UK: Cambridge University Press.
- Patch, Holly, and Tomke König. 2018. "Trans* Vocality: Lived Experience, Singing Bodies, and Joyful Politics." *Freiburger Zeitschrift Für GeschlechterStudien* 24, no. 1 (December 20): 31–53.
- Pausewang-Gelfer, M., and Kevin J. Schofield. 2000. "Comparison of Acoustic and Perceptual Measures of Voice in Male-to-Female Transsexuals Perceived as Female Versus Those Perceived as Male." *Journal of Voice* 14, no. 1 (March): 22-33. doi:10.1016/S0892-1997(00)80092-2.
- Pausewang-Gelfer, Marylou, and Ruthanne M. Tice. 2013. "Perceptual and Acoustic Outcomes of Voice Therapy for Male-to-Female Transgender Individuals Immediately After Therapy and 15 months Later." *Journal of Voice* 27, no. 3: 335–47. <http://dx.doi.org/10.1016/j.jvoice.2012.07.009>.
- Pearce, Ruth, and Kirsty Lohman. 2018. "De/constructing DIY Identities in a Trans Music Scene." *Sexualities* 22, no. 1-2 (February): 97-113. <https://doi-org.proxy.library.carleton.ca/10.1177/1363460717740276>.
- Peck, Charlie. 2017. "Home (cover) - CHARLIE PECK (a tribute to the transgender community)." Uploaded February 21, 2017. YouTube, 4:22. <https://www.youtube.com/watch?v=BVhLD0lNKj0>.
- Peraino, Judith Ann. 2007. "Listening to Gender: A Response to Judith Halberstam." *Women & Music: A Journal of Gender and Culture* 11: 59–64. doi:10.1353/wam.2007.0027.
- Phan, Archer. 2020. "Transgender Man Duets with Himself." Uploaded March 8, 2020. YouTube, 3:51. <https://www.youtube.com/watch?v=GsvxopHbZOO>.
- Pillai, Nicolas. 2014. "Filming Improvisation: Jazz Criticism's Neglect of Film Style." *The Soundtrack* 6, no. 1-2: 5–20. doi:10.1386/st.6.1-2.5_1.
- Reed-Danahay, Deborah. 1997. *Auto/ethnography: Rewriting the Self and the Social*. Oxford: Berg.

Rich, B. Ruby. 2013. *New Queer Cinema: The Director's Cut*. Durham: Duke University Press. <https://doi.org/10.1515/9780822399698>.

Richardson, John. 2019. "From Music Video Analysis to Practice: A Research-Creation Perspective on Music Videos." In *The Bloomsbury Handbook of Popular Music Video Analysis*, edited by Lori A. Burns and Stan Hawkins, 69–90. New York: Bloomsbury Academic.

Robinson, Dylan. 2020. *Hungry Listening: Resonant Theory for Indigenous Sound Studies*. Minneapolis: University of Minnesota Press.

Romano, Victoria. 2021. "Composing New Queer Cinema: An Ethnographic Approach." Master's thesis, University of California, Riverside.

Rouch, Jean, and Gilbert Rouget. 1963. *Sortie de Novices de Sakpata*. Meudon: CNRS images. 16mm film, DVD video, 17 minutes.

Rouch, Jean. (1975) 2009. "The Camera and Man." In *Principles of Visual Anthropology*, edited by Paul Hockings, 79–98. Berlin/Boston: De Gruyter, Inc.

Rouget, Gilbert, Jean Rouch, and Germaine Dieterlen. 1964. *Batteries Dogon*. Meudon: CNRS Audiovisuel. Film, 26 minutes.

Sansom, Matthew. 2007. "Improvisation & Identity: A Qualitative Study." *Critical Studies in Improvisation* 3, no. 1: 1-17. doi: 10.21083/csieci.v3i1.48.

Schaeff, Catherine. 2022. "Assigned-Female-at-Birth Trans Masculine and Non-Binary Individuals Differ in Their Body Satisfaction and Desire for Gender Affirming Treatments." *Archives of Sexual Behavior* 51, no. 4: 2037–47. <https://doi-org.proxy.library.carleton.ca/10.1007/s10508-021-02178-3>.

Schlichter, Annette. 2011. "Do Voices Matter? Vocality, Materiality, Gender Performativity." *Body & Society* 17, no. 1: 31–52. <http://www.sagepub.co.uk/journalsPermissions.nav>

Sedgwick, Eve Kosofsky. 2003. *Touching Feeling: Affect, Pedagogy, Performativity*. Series Q. Durham: Duke University Press Books. <https://search-ebSCOhost-com.proxy.library.carleton.ca/login.aspx?direct=true&db=nlebk&AN=600096&site=ehost-live>.

Siddall, Gillian and Ellen Waterman, eds. 2016. *Negotiated Moments: Improvisation, Sound and Subjectivity*. Durham, NC: Duke University Press.

Smith, Julie Dawn. 2014. "Playing Like a Girl: The Queer Laughter of the Feminist Improvising Group". In *The Improvisation Studies Reader: Spontaneous Acts*, edited by Rebecca Caines and Ajay Heble, 261-277. London and New York: Routledge.

- Söderpalm, Ewa, AnnaKarin Larsson, and Sven-Åke Almquist. 2004. "Evaluation of a Consecutive Group of Transsexual Individuals Referred for Vocal Intervention in the West of Sweden." *Logopedics Phoniatics Vocology* 29: 18-30.
- Spry, Tami. 2011. *Body, Paper, Stage: Writing and Performing Autoethnography*. Walnut Creek, Calif: Left Coast Press, Inc.
- Spry, Tami. 2016. "The Willful Embodiment of 'We': Embodying Utopian Performatives." In *Autoethnography and the Other: Unsettling Power Through Utopian Performatives*, 87-116. New York: Routledge.
- Stanley, Eric A., and Chris Vargas. 2007. *Homotopia*. Directed by Eric Stanley and Chris Vargas. DVD, 27 minutes.
- Stanley, Eric A., Wu Tsang, and Chris Vargas. 2013. "Queer Love Economies: Making Trans/feminist Film in Precarious Times." *Women & Performance* 23, no. 1: 66–82. doi:10.1080/0740770X.2013.792634.
- Sterne, Jonathan. 2003. *The Audible Past: Cultural Origins of Sound Reproduction*. 2nd edition. Durham: Duke University Press.
- Stévance, Sophie, and Serge Lacasse. 2018. *Research-Creation in Music and the Arts Towards a Collaborative Interdiscipline*. 1st edition. London and New York: Routledge. <https://doi-org.proxy.library.carleton.ca/10.4324/9781315605579>.
- Titon, Jeff Todd. 1992. "Representation and Authority in Ethnographic Film/Video: Production." *Ethnomusicology* 36, no. 1: 89–94. <https://doi.org/10.2307/852086>.
- Tompkins, Avery. 2014. "Asterisk." *Transgender Studies Quarterly* 1, no. 1-2 (May): 26–27. doi: <https://doi-org.proxy.library.carleton.ca/10.1215/23289252-2399497>
- Tonelli, Chris J. 2016. "Social Virtuosity and the Improvising Voice; Phil Minton & Maggie Nicols Interviewed by Chris Tonelli." *Critical Studies in Improvisation* 10, no. 2: 1-14. doi:10.21083/csieci.v10i2.3212.
- Tonelli, Chris. 2020. *Voices Found: Free Jazz and Singing*. New York: Routledge.
- Tråvén, Marianne. 2016. "Voicing the Third Gender – The Castrato Voice and the Stigma of Emasculation in Eighteenth-Century Society." *Etudes Epistémè* 29, no. 29. doi: 10.4000/episteme.1220.
- Van Borsel, J., G. De Cuypere, R. Rubens, and B. Destaerke. 2000. "Voice Problems in Female-to-Male Transsexuals." *International Journal of Language & Communication Disorders* 35, no. 3: 427–42. doi:10.1080/136828200410672.

- Van Borsel, John, Griet De Cuypere, and Hilde Van den Berghe. 2001. "Physical Appearance and Voice in Male-to-Female Transsexuals." *The Journal of Voice* 15, no. 4 (December): 570-75. doi:10.1016/S0892-1997(01)00059-5.
- Vargas, Chris E., and Eric A. Stanley. 2013. *Criminal Queers*. Directed by Eric Stanley and Chris Vargas. DVD, 63 minutes.
- Vertov, Dziga. (1934) 2016. *Dziga Vertov: The Man with the Movie Camera*. In Russian. San Francisco, California, USA: Flicker Alley. Kanopy Steaming, 279 minutes.
- Vincent, Vandom. 2016. "FTM Singing Voice Documentation." Uploaded September 11, 2016. YouTube, 5:45. <https://www.youtube.com/watch?v=vJevmTnKrew>.
- Waterman, Ellen. 2008. "Naked Intimacy: Eroticism, Improvisation, and Gender." *Critical Studies in Improvisation* 4, no. 2: 1-20. doi: 10.21083/csieci.v4i2.845.
- Wiltshire, A. 1995. "Not by Pitch Alone: A View of Transsexual Vocal Rehabilitation." *National Student Speech Language Hearing Association Journal* 22: 53-57. doi:10.1044/nsshla_22_53.
- Wise, Timothy. 2007. "Yodel Species: A Typology of Falsetto Effects in Popular Music Vocal Styles." *Radical Musicology* 2: 57 paragraphs.
- Zemp, Hugo. 1986a. *The Wedding of Susanna and Josef*. Directed by Hugo Zemp. Recorded in 1983 in Muotatal Valley, Switzerland. Geneva: CNRS Audiovisuel and Ateliers d'ethnomusicologie. 16 mm, color, 27 minutes.
- Zemp, Hugo. 1986b. *Yootzing and Yodelling*. Directed by Hugo Zemp. Recorded in 1983 in Muotatal Valley, Switzerland. Geneva: CNRS Audiovisuel and Ateliers d'ethnomusicologie. 16 mm, color, 52 minutes.
- Zemp, Hugo. 1988. "Filming Music and Looking at Music Films." *Ethnomusicology* 32, no. 3: 393-427. <https://doi.org/10.2307/851939>.
- Zimman, Lal. 2010. "Female-to-Male Transsexuals and Gay-Sounding Voices: A Pilot Study." *Colorado Research in Linguistics* 22, no. 1: 1-21. doi: 10.33011/cril.22.1.3.
- Zimman, Lal. 2018. "Transgender Voices: Insights on Identity, Embodiment, and the Gender of the Voice." *Lang Linguist Compass* 12, no. 8: 2-16. <https://doi.org/10.1111/lnc3.12284>.