

Anne Tarvainen

Singing, Listening, Proprioceiving: Some Reflections on Vocal Somaesthetics

Tarvainen, Anne. 2018. "Singing, Listening, Proprioceiving: Some Reflections on Vocal Somaesthetics." In *Aesthetic Experience and Somaesthetics*, edited by Richard Shusterman, 120–42. Leiden & Boston: Brill.

[This is the author's own layout version. The contents and the page numbers are identical to the original publication.]

The research is funded by the Kone Foundation.

Singing, Listening, Proprioceiving: Some Reflections on Vocal Somaesthetics

Anne Tarvainen

Introduction

This article concerns the somaesthetics of vocal experience and will consider some starting points for the study of vocal somaesthetics. Such study will emphasize the bodily and experiential aspects of vocalizing and listening to vocal sounds. *Vocal experience* refers here both to the experiences of making vocal sounds (singing, speaking, and performing other kinds of vocalizations) as well as to the experiences of listening to someone else's voice. In this article I will focus on the experiences of singing and listening.¹

What is the difference between mere vocal experience and *somaesthetic* vocal experience? Why do we need to bring forth the somaesthetic quality of vocal experience? In the previous research of voice, the focus has usually been on the voice as heard or measured as an acoustic fact. The traditional aesthetics of music, likewise, has usually been concentrated on the aspects of sound as heard. In other words, the auditive aspects of vocal experience have been emphasized in the previous approaches. However, some new perspectives on the rich sensorium of music and voice have been articulated lately in the field of cultural musicology.² Musicologist Linda Phyllis Austern writes: "The production of ordered sound involves not only the intellect, but, depending on the medium, also touch, taste, sight, and smell as well as hearing."³

In contrast to the traditional research of human vocalicity, vocal somaesthetics will be interested in the bodily sensations of what it feels like to vocalize

¹ I write this article as an ethnomusicologist, researcher of singing, singer, and a teacher of popular music singing, voice improvisation, and relaxing voice.

² E.g. Nina Sun Eidsheim, *Sensing Sound: Singing & Listening as Vibrational Practice* (Durham & London: Duke University Press, 2015), Kindle edition. Norie Neumark, "Introduction: The Paradox of Voice," in *voice: Vocal Aesthetics in Digital Arts and Media*, eds. Norie Neumark, Ross Gibson and Theo van Leeuwen (Cambridge & London: The mit press, 2010).

³ Linda Phyllis Austern, "Introduction," in *Music, Sensation, and Sensuality*, ed. Linda Phyllis Austern (New York: Routledge, 2002), 1.

and to listen to another person vocalizing. Vocal sound as heard is understood here being only a part of the multimodal experience of vocalizing and listening. Vocal somaesthetic experience is auditive, proprioceptive, aesthetic, motional, affective and intersubjective. In this article I will concentrate mainly on the proprioceptive dimension of the experience, although I will also touch the other aspects as well. I argue that the proprioceptive, inner-body senses are essential in vocal experiences. Proprioception has been discussed in the previous research and pedagogies of singing.⁴ Even so, research with the main focus on the proprioceptive aspects of vocal experiences is still mostly lacking. Proprioception has largely been left out of the inspection in the research more broadly,⁵ regardless of the “bodily turn” or “corporeal turn” occurring in the humanities and social sciences in recent decades. However, in the fields of phenomenology and somaesthetics, proprioception has got more attention lately.⁶ It has been articulated also in the research of music and consciousness.⁷

Richard Shusterman has articulated the difference between representational, performative, and experiential somaesthetics. The first refers to the bodily techniques and manners that concentrate on the body’s external appearance. The second is focused on building bodily power and performance, as well as developing skills. The third one is “focused on the quality and perceptive consciousness of one’s somatic experience.” These different dimensions of somaesthetics are, in one way or another, present in most somatic practices, thus complementing each other.⁸ The somaesthetics of representation is dominant in our culture.⁹ In the social sciences it has been argued that we are living in

⁴ E.g. James Stark, *Bel Canto: A History of Vocal Pedagogy*, 2. edition (Toronto: University of Toronto Press, Scholarly Publishing Division, 2003), 29–30. Nicole Scotto Di Carlo, “Internal Voice Sensitivities in Opera Singers,” *Folia Phoniatica et Logopaedica* 46, no. 2 (1994): 79–85.

⁵ E.g. Richard Shusterman, *Body Consciousness: A Philosophy of Mindfulness and Somaesthetics* (Cambridge: Cambridge University Press, 2008), 50–51. Phillip Vannini, Dennis Waskul, and Simon Gottschalk, *The Senses in Self, Society, and Culture: A Sociology of the Senses* (New York: Routledge, 2013), 6.

⁶ E.g. Shaun Gallagher, “Somaesthetics and the Care of the Body,” *Metaphilosophy* 42, no. 3 (2011). Barbara Montero, “Proprioception as an Aesthetic Sense,” *Journal of Aesthetics and Art Criticism* 64, no. 2 (2006). Richard Shusterman, *Thinking through the Body: Essays in Somaesthetics* (Cambridge: Cambridge University Press, 2012). Shusterman, *Body Consciousness*.

⁷ Alicia Peñalba Acitores, “Towards a Theory of Proprioception as a Bodily Basis for Consciousness,” in *Music and Consciousness: Philosophical, Psychological, and Cultural Perspectives*, ed. by David Clarke and Eric Clarke (Oxford: Oxford University Press, 2011).

⁸ Shusterman, *Body Consciousness*, 26, 80.

⁹ Shusterman, *Body Consciousness*, 28.

a culture of appearances.¹⁰ Our awareness of the appearance and the performance capacity of the body has increased, and we have developed numerous ways to measure and shape it. With various kinds of methods, we perceive our bodies as if from the outside, according to certain socially established ideals. While our attention is turned to the external aspects of our bodies, we tend to lose the contact with inner perceptions.¹¹ Since our culture is concentrated on the appearance of our bodies, Shusterman's somaesthetic approach underlines the importance of the experiential somaesthetics – the cultivation of how we experience our bodies.¹²

The culture of appearances is shown in our vocal behavior as well. It is ruled by performance- and appearance-oriented attitudes. We reach for the external vocal ideals established by pedagogies and vocal role models (singers, actors, etc.). The main focus is often on producing a “good,” “beautiful,” and “clear” voice that can tolerate long-term strain. We have a tendency to focus on vocal sounds as heard – consequently, the bodily experience and the pleasure of vocalizing as such are far too often disregarded. In previous studies of voice, the main focus has been on defining a good voice and on finding practical ways to achieve it. This has usually been done by training the body to produce the preferred vocal sounds more skillfully. The focus has been usually on vocalization as a physiological phenomenon. Body is often referred to as an instrument.¹³ Päivi Järviö, a singer and a researcher of Baroque music singing, has articulated that the previous research has approached human voice from the outside perspective with the focus on phonetics, acoustics, anatomy and physiology.¹⁴ Instead of focusing on the acoustic or physiological facts in vocalizing, I suggest that vocal somaesthetics will prioritize the study and cultivation of the bodily-vocal *experiences* instead – the inside perspective to human vocality.

Somaesthetics has been significantly applied in the fields of music education and ethnomusicology.¹⁵ But despite that fact, it has not yet been applied

¹⁰ Satu Liimakka, “Re-Embodied: Young Women, the Body Quest and Agency in the Culture of Appearances” (PhD diss., University of Helsinki, 2013).

¹¹ Jaana Parviainen, *Meduusan liike: Mobiiliajan tiedonmuodostuksen filosofiaa* (Helsinki: Gaudeamus, 2006), 106–113.

¹² Shusterman, *Body Consciousness*, 1, 6.

¹³ Shusterman has criticized the idea of human body as only an instrument that is used as a mean to a further end (Shusterman, *Thinking through the Body*, 12, 35–36, see also *Body Consciousness* 4, 51).

¹⁴ Päivi Järviö “The Singularity of Experience in the Voice Studio: A Dialogue with Michel Henry,” in *Voice Studies: Critical Approaches to Process, Performance and Experience*, eds. Konstantinos Thomaidis and Ben Macpherson (New York: Routledge, 2015).

¹⁵ Sven-Erik Holgersen, “Body Consciousness and Somaesthetics in Music Education,” *Action, Criticism & Theory for Music Education* 9, no. 1 (2010). Fred Everett Maus, “Somaesthetics of Music,” *Action, Criticism, and Theory for Music Education* 9, no. 1 (2010). Simon McKerrell, “An Ethnography of Hearing:

in the research of singing – at least not explicitly.¹⁶ There are, nevertheless, several previous approaches where the bodily aspects of singing have been articulated in a detailed manner. The most well known is probably the theory of *the grain of the voice* by Roland Barthes.¹⁷ In addition, other approaches to a singing body have been developed since then, for example in the fields of musicology and feminist studies.¹⁸

In the first section of this article I will articulate the concept of proprioception and consider its role from the vocal and aesthetic point of view. The next three sections focus on the features of proprioceptive vocal experiences and the aesthetic potential of such experiences. My discussion will suggest the dissolving of the subject–object and the inside–outside dichotomies, the emphasis on expression, and the intersubjectivity of listening as characteristic features of vocal somaesthetic experiences. In the conclusion of this article I will articulate some starting points for vocal somaesthetics.

Proprioception

As Daniel N. Stern remarks, “[W]ith every movement there is proprioception, conscious or not.”¹⁹

I begin the examination of somaesthetic vocal experience by taking the focus to the inner-body perceptions produced by the *proprioceptive senses*. With these senses we can feel, for example, the inner sensations of postures,

Somaesthetic Hearing in Traditional Music,” in *The Body is the Message, Volume 2*. (Graz: Grazer Universitätsverlag Leykam, 2012), accessed February 28, 2014, https://www.academia.edu/1074033_An_ethnography_of_hearing_somaesthetic_hearing_in_traditional_music_.

¹⁶ See, however, Anne Tarvainen, “Vokaalinen soomaestetiikka: Kehotietoisuuden esteettiset mahdollisuudet ihmisen äänenkäytössä ja kuuntelemisessa,” *Etnomusikologian Vuosikirja* 28 (2016), accessed 24 January, 2017, <http://etnomusikologia.journal.fi/article/view/60239/21141>.

¹⁷ Roland Barthes, “The Grain of the Voice,” in *Image Music Text: Essays Selected and Translated by Stephen Heath* (London: Fontana Press, 1977), accessed 22 July, 2016, http://dss-edit.com/profanon/sound/library/Barthes__Roland_-_Image_Music_Text.pdf.

¹⁸ E.g. Leslie C. Dunn and Nancy A. Jones, eds., *Embodied Voices: Representing Female Vocality in Western Culture* (Cambridge: Cambridge University Press, 1994). Eidsheim, *Sensing Sound*. Norie Neumark, “Doing Things with Voices: Performativity and Voice,” in *voice: Vocal Aesthetics in Digital Arts and Media* (Cambridge: mit Press, 2010).

¹⁹ Daniel N. Stern, *Forms of Vitality: Exploring Dynamic Experience in Psychology, the Arts, Psychotherapy, and Development* (New York: Oxford University Press, 2010), 9.

movements, balance, joint angles, and muscle tensions of our body.²⁰ These senses compose the overall field of *proprioception*. Proprioceptive senses produce constantly new information on the state of one's own body. However, we cannot become aware of all that information and most of it stays unconscious. The part that we become aware of is called *body awareness* or *body consciousness*.²¹ Shusterman distinguishes the concept of proprioception from the specific proprioceptive form of kinesthetic perception. The first one refers to "the position, posture, weight, orientation, balance, and internal pressures of one's body," and the latter to those proprioceptive sensations that arise through bodily movements.²² In this article I will use the concept of proprioception to include both the static and the motion-related or kinaesthetic dimension of inner-body sensations. *Proprioceiving*, thus refers to the *act* of feeling one's own body "from inside."²³

In addition to proprioceptive sensations, the interoceptive sensations are at play in vocalizing as well. *Interoception* includes sensations of internal organ functions, for example heartbeat, respiration, satiety, and emotional sensations that result from the activity of the autonomic nervous system. They are a part of the body awareness alongside proprioception.²⁴ In this article, however, I concentrate on proprioception. It is beyond the scope of this article to consider the differences between proprioceptive and interoceptive sensations, particularly as they may be intertwined with each other in our vocal experiences. Nevertheless, more detailed research on the proprioceptive and interoceptive aspects of singing and speaking is certainly required in the future.

The inner-body experiences in speaking and singing include, for example, the sensations of the internal body movements of breathing and vocalizing, sensations of the sounds vibrating in the cavities and tissues of the body, and sensations of the affects related to vocal expression. In listening to another person, empathizing with the affective qualities of a speaker's or a singer's vocal movements is an essential proprioceptive and motional dimension. Milla Tiainen, a researcher of singing and performance, has considered the proprioceptive aspects of singing in her research on students of classical singing.

²⁰ Wolf E. Mehling et al., "Body Awareness: Construct and Self-Report Measures," *PLoS ONE* 4, no. 5 (2009), accessed 28 January, 2016, <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0005614>.

²¹ Shusterman, *Body Consciousness*. Mehling et al., "Body Awareness."

²² Shusterman, *Thinking through the Body*, 330.

²³ Philosopher Barbara Montero has introduced this concept in her article "Proprioception as an Aesthetic Sense."

²⁴ Mehling et al., "Body Awareness."

According to her, “[the] subtle body motion ‘classical’ singers characteristically perform across acts of phonation can be productively addressed in terms of proprioception.”²⁵ I argue that proprioception and body awareness are essential factors in the formation of an aesthetic vocal experience. In the vocal art forms – e.g. speech theatre, singing and the more unconventional forms (like voice improvisation) – the artist’s body is strongly present and often it has a potential to become the object of experience to the same extent as the vocal sounds.²⁶ Shusterman’s comment on dance surely fits the vocal arts as well: “the performer’s body surely belongs as much to the ends as to the means of the artwork.”²⁷

Maybe one of the reasons why the proprioceptive dimension of voice has been ignored in previous research is because for many of us proprioception has remained quite unknown field of experience. In everyday life we are usually unaware of the proprioceptive sensations, and therefore our body awareness is weakened.²⁸ Instead, we are usually focused on remembering, planning, and thinking with abstract concepts.²⁹ This is also true when it comes to vocal acts: we are usually focused on the things we are saying or on the quality of our voices. Therefore the bodily aspects of vocalizing are left outside of awareness. It is quite common that only the sensations of discomfort in singing or speaking awaken our body awareness.³⁰ For example, performance anxiety, the experience of failing to achieve certain aesthetic vocal ideals, or the inability to express emotions in an effective manner may force us to take notice of our body.

We can also become more aware of the body’s proprioception through practice.³¹ Shusterman has highlighted the importance of heightened body consciousness in correcting faulty and dysfunctional bodily habits, claiming that it is a means of improving the overall quality of life. He has also articulated that

²⁵ Milla Tiainen, “Becoming-Singer: Cartographies of Singing, Music-Making and Opera,” PhD diss., (Turku, Finland: University of Turku, 2012), 117.

²⁶ Cf. Barthes, “The Grain of the Voice.”

²⁷ Shusterman, *Thinking through the Body*, 12.

²⁸ E.g. Drew Leder, *The Absent Body* (Chicago: The University of Chicago Press, 1990).

²⁹ Timo Klemola, *Taidonfilosofia – filosofin taito*, 2nd edition (Tampere: Tampere University Press, 2005.), 86–87.

³⁰ The role of pain and discomfort in awakening body awareness has been discussed before in phenomenology (e.g. Drew Leder, *The Absent Body*), sociology (e.g. Simon J. Williams and Gillian Bendelow, *The Lived Body: Sociological Themes, Embodied Issues* (York: Routledge, 1998), 155–170), and in somaesthetics (Shusterman, *Body Consciousness*, xi and *Thinking through the Body*, 40).

³¹ Shusterman, *Body Consciousness*, 53–54.

aesthetic experience can be improved by the enhanced and more sensitive body consciousness.³²

According to Montero, a trained dancer trusts more her own proprioception than the mirrors when evaluating her movements.³³ Advanced singers, as well, rely on their proprioception when evaluating their singing. Johan Sundberg, a researcher of voice, has pointed out that developed singers trust their voices as felt inside their bodies – maybe even more than their voices as heard. The beginners may, instead, listen to their own voices as if from outside.³⁴

Just as a great deal of a dancer's or a musician's work is based on proprioception,³⁵ also a singer spends a lot of time and effort developing her body awareness. This way she becomes more and more sensitive to the subtle nuances of the proprioceptive sensations in her singing. With practice, her body becomes a “locus of sensory-aesthetic appreciation,” a phrasing adopted from Sven-Erik Holgersen, who has written on the bodily aspects of musical experience in the field of music education.³⁶

Granted that proprioception has a major role in somaesthetic vocal experience, can we however consider it to be a truly aesthetic sense? In her article on proprioception and dance, Montero has argued for this possibility. Traditionally, only vision and hearing are considered as aesthetic senses.³⁷ The tradition of aesthetics has focused on the external objects and the experiences they produce. The sensations of one's own inner proprioception have not been seen as potentially aesthetic. There are three main concerns regarding the aesthetic possibilities of proprioception: (1) In proprioceptive experience, the difference between the subject and the object of experience is often compromised, and it has been argued that with proprioception one can only sense his/her own body, not the objects of the outside world. (2) It has also been said that proprioception is only a secondary sense, supplementing the primary senses like sight or hearing. (3) Proprioceptive sensations as well as the objects of these sensations are also said to be private by their nature, lacking the intersubjective

³² Shusterman, *Thinking through the Body*, 3, 18, 35–41, 91–111.

³³ Montero, “Proprioception as an Aesthetic Sense,” 231.

³⁴ Johan Sundberg, *The Science of the Singing Voice* (Illinois: Northern Illinois University Press, 1987), 160.

³⁵ Holgersen, “Body Consciousness and Somaesthetics in Music Education,” 33. Montero, “Proprioception as an Aesthetic Sense,” 232.

³⁶ Holgersen, “Body Consciousness and Somaesthetics in Music Education,” 232. See also Shusterman, *Body Consciousness*, 19.

³⁷ Montero, “Proprioception as an Aesthetic Sense,” 232.

extent.³⁸ In the following sections I will deal these aspects in more detail from the vocal point of view.

Subject–Object, Inside–Outside

Because proprioception is a realm of private self-perception, there is no clear distinction between the object of experience and the bodily sensations. Philosopher Shaun Gallagher has argued that one can only sense one's own body with the proprioceptive senses, not the objects of the outside world.³⁹ Nevertheless, it has also been argued that with proprioceptive senses we can, in fact, gather information, not only on the internal bodily states of our own being but also on the relation of these "states" to the objects in the outside world.⁴⁰ It has also been argued that "the perception of stimuli in the environment also requires the perception of the self."⁴¹

Shusterman has pointed out that somatic self-awareness goes beyond the self. It always includes the environmental context of soma. One can always at least feel the air he is breathing, effects of gravity (weight of his body) and the surfaces his body is touching. Somatic self-consciousness includes more than the body itself. Shusterman writes: "Strictly speaking, we can never feel our body purely in itself; we always feel the world with it."⁴² Developmental psychologist Daniel N. Stern has argued that usually the proprioception and the objects of the world are sensed as one unified experience, not as separate from each other. He writes:

There are thus two distinct "elements" of the experience. There is the action that is a muscular and proprioceptive motor experience, and there is the sensory experience emanating from the object – the particular stimulus properties of the object which are perceivable in the course of the particular action performed. The motor experience and the sensory

³⁸ Montero, "Proprioception as an Aesthetic Sense." See also Shaun Gallagher, "Bodily Self-Awareness and Object Perception," *Theoria et Historia Scientiarum: International Journal for Interdisciplinary Studies* 7, no. 1 (2003), accessed September 15, 2008, <http://pegasus.cc.ucf.edu/~gallaghr/theoria03.html>.

³⁹ Gallagher, "Bodily Self-Awareness and Object Perception."

⁴⁰ Timo Kalanti, *Ruumis ja rauta: Esseitä esineiden sosiaalisuudesta* (Helsinki: University of Helsinki, 2009), 74.

⁴¹ Acitores, "Towards a Theory of Proprioception as a Bodily Basis for Consciousness," 218.

⁴² Shusterman, *Body Consciousness*, 8, 98.

experience are always intimately connected and are experienced as a single unit of experience.⁴³

The connectedness of the motor and the sensory experience is evident when experiencing one's own voice. Shusterman has pointed out that one can, for example, feel one's own voice from inside and at the same time hear her voice from outside. It maybe because of the rapid shifts of focus in the experience, but nevertheless, the *experience* of sensing these two at the same time is real.⁴⁴ The vibrations of sounds have an ability to penetrate the surface of one's body. Being so, they have a potential to blur the clear distinction between the inside and outside realms as well as the clear subject–object division in the experience.⁴⁵ Philosopher Steven Shaviro has written: “The voice always stands in between: in between body and language, in between biology and culture, in between inside and outside, in between subject and Other, in between mere sound or noise and meaningful articulation.”⁴⁶

When vocalizing with body awareness, the divide between mind and body may become obscure as well. In this kind of experience I may feel I am no longer a mind using a body as an instrument to produce vocal sounds. Instead, I am a whole bodily, sonorous and living being enjoying the unity of movements, affects and sounds of vocalizing.

In previous research it has been argued that becoming aware of one's own body may disturb the performing of the bodily tasks.⁴⁷ I argue here, instead, that becoming aware of one's own body does not necessarily disturb the performance.⁴⁸ One can focus on the body with different attitudes. A critical and controlling attitude may well hamper the performing of bodily skills, but a more neutral and approving attitude, instead, may deepen the experience and bring more subtle nuances to the vocalization. Shusterman has pointed out that the awareness of one's own body does not interfere the bodily actions in

⁴³ Daniel N. Stern, *The First Relationship: Infant and Mother* (Cambridge & London: Harvard University Press, 2002), 120.

⁴⁴ Shusterman, *Body Consciousness*, 72.

⁴⁵ See, for example, Mladen Dolar, *A Voice and Nothing More* (Cambridge, Massachusetts & London: The mit Press, 2006), 70–71. Neumark “Introduction,” xx. Kaja Silverman *The Acoustic Mirror: The Female Voice in Psychoanalysis and Cinema* (Bloomington: Indiana University Press, 1988), 80.

⁴⁶ Steven Shaviro, “A Voice and Nothing More,” *The Pinocchio Theory*, last modified April 14, 2006, <http://www.shaviro.com/Blog/?p=489>. See also Neumark “Introduction,” xx.

⁴⁷ For example, William James and Maurice Merleau-Ponty have presented these kinds of arguments (see Shusterman, *Thinking through the Body*, 61 and *Body Consciousness*, 68).

⁴⁸ See also Montero, “Proprioception as an Aesthetic Sense,” 240.

itself. Instead, it is the distracting thoughts and attendant emotions that may do so. He articulates an important question here: “Is my consciousness calmly observant or anxiously flustered?” He argues that one can learn the skill to control and direct one’s attention towards and away from somatic awareness if needed.⁴⁹ I see these kinds of skills being beneficial, even essential, in singing.

Aesthetic experience cannot be only a subjective state. It has to have some kind of intentional object, and therefore it has to be an experience about something. It is not only a blind sensation but rather a meaningful perception.⁵⁰ Shusterman reminds us, though, that the relation between the experience and the object of the experience is not always this straightforward. One can, for example, misunderstand the object and still the experience could be aesthetic. There are also experiences that can be considered aesthetic even if the subject–object duality has been overcome, for example in mystical-like states of enlightenment.⁵¹

However, one does not have to be enlightened in order to overcome the duality between subject and object – at least to some extent. For example, experiencing one’s own voice in a bodily-aware manner can make the inside–outside divide more indistinct. Kacper Bartczak, a researcher of literature, has written: “Contact with the external has its proper beginning in a correctly tuned contact with one’s own body, which will also blur any easy external/internal divide.”⁵² In my opinion, these kinds of “blurred” experiences can be aesthetic to the greatest extent. The disappearance of the clear distinction between subject and object, inside and outside, as well as body and mind, is quite typical to somaesthetic vocal experiences that are full of bodily awareness. The aesthetic status of these experiences may need a lot of further consideration, but it certainly should not be denied out of hand.

Bringing the Expression to the Foreground

Is proprioception only a “secondary” sense that merely guides or reflects our visual or auditive observations? Montero argues that visual sense and

⁴⁹ Richard Shusterman, “Soma, Self, and Society: Somaesthetics as Pragmatist Meliorism,” *Metaphilosophy* 42, no. 3 (2011), 319–320, accessed October 17, 2014, <http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9973.2011.01687.x/full>.

⁵⁰ Richard Shusterman, “Aesthetic Experience: From Analysis to Eros,” *Journal of Aesthetics and Art Criticism* 64, no. 2 (2006), 219.

⁵¹ Shusterman, “Aesthetic Experience,” 223.

⁵² Kacper Bartczak, “Bodies that Sing: Somaesthetics in the American Poetic Tradition,” *Pragmatism Today* 3, no. 2 (2012), 30.

proprioception are co-dependent, and that none of them is necessarily more fundamental to the other. She writes: “[...] in some cases, one might proprioceptively judge that a movement is beautiful because one knows that the movement, if seen, would look beautiful. But in other cases, one might visually judge that a movement is beautiful because one knows that if proprioceived, this movement would feel beautiful.”⁵³ As stated before, proprioception stays quite often unnoticed, but it can be brought to the foreground in the experience if wanted.⁵⁴ It can also be left to the background, if the concentration is needed for something else. I think the relevant question here is not whether one of the senses (hearing or proprioception) is more fundamental to the other, but how our awareness is focused in different types of listening and vocalizing. We have an ability to shift our focus according to our needs. Becoming aware of these shifts and learning to use them consciously is one of the lessons somaesthetics can teach us.

As a bodily being, I cannot listen to the objects of the world without my body. I can turn my attention away from my body’s proprioceptive sensations and reactions, but the body with its sensations and affects is still somehow there, affecting the ways I understand what I hear. William James has argued that even the most intellectual attention includes certain kinds of muscular contractions in the head, eyes, brow and glottis.⁵⁵ I assume that even the most analytic way of listening includes certain bodily activity and motion, even if it stays unnoticed by the listener herself.

Focusing on the bodily feelings in the act of singing or listening makes us sensitive to the affective and motional dimensions of vocalizing. This means we become more aware of the bodily-vocal *expression* of a singer than the acoustic features of her *voice*.

I have reflected on the distinction between voice and vocal expression before. *Voice* refers to the human voice as heard sound produced by the physiological vocal organs. *Vocal expression*, for its part, refers to the embodied (affective and motional) qualities as felt and understood in the body’s proprioception and interoception. Vocal expression cannot be explained by the physiology of the voice or by the acoustic parameters of sound alone. It is always understood in the living and embodied experience as an inseparable unity of sounds,

⁵³ Montero, “Proprioception as an Aesthetic Sense,” 236.

⁵⁴ See also Shusterman, *Thinking through the Body*, 17.

⁵⁵ William James, *The Principles of Psychology* (Cambridge: Harvard University Press 1983), 287–288, according to Shusterman, *Body Consciousness*, 144.

affects, and movements.⁵⁶ We may find acoustic parameters in the singer's performance that could be used to explain some features of singer's expression (the voice may, for example, be tight and the performance may express overall tightness). Even so, this does not mean that singer's expression and the acoustic parameters of her voice would be always directly comparable.⁵⁷

In singing and speaking, the movements of the body generate the vocal sounds. Without movement there would be no sound. The affects related to vocalizing and listening are also perceived as some kind of change or movement. Affects, body movements and singing voice are interrelated. Sundberg has pointed out that certain kinds of expressive movements are related to certain emotional states. In the act of singing these movements are used to produce vocal sounds.⁵⁸ The proprioceptive sensations of movements and the interoceptive sensations of affects are thus closely related in the experience.

What kind of movements, then, are there to be found in different vocal performances and styles of singing? What kind of pulls, pushes, expansions and contractions does the body carry out while singing? These are, in my opinion, the most interesting questions when approaching the somaesthetic dimensions of vocal expression. All the bodily-aware sensations starting from the inner-body movements of vocal organs and extending into the sensations of affects can be conceptualized through descriptions of *vitality affects* or *dynamic forms of vitality*, as theorized by Daniel N. Stern.⁵⁹ Vitality affects are dynamic and kinetic qualities of experience that refer to the ways in which any action is carried out, whether it is walking, laughing, standing up, or singing. Vitality affects can be best described with metaphorical characterizations like "surging," "fading away," "fleeting," "accelerating," "decelerating," "bursting," "reaching," "hesitating," and so on.⁶⁰

Behind every movement, emotion and vocal sound, there are vitality affects that give the movements, emotions and sound their characteristic qualities.

⁵⁶ Anne Tarvainen, "Laulajan ääni ja ilmaisu: Kehollinen lähestymistapa laulajan kuuntelemiseen, esimerkkinä Björk" (PhD diss., Tampere: Tampere University Press, 2012), accessed April 20, 2017, <http://urn.fi/urn:isbn:978-951-44-8803-0>.

⁵⁷ Tarvainen, "Laulajan ääni ja ilmaisu," 369–370.

⁵⁸ Sundberg, *The Science of the Singing Voice*, 154–155.

⁵⁹ Stern has used these two concepts in different times while developing his theory (Stern, *Forms of Vitality*, 17). See also Daniel N. Stern, *The Interpersonal World of the Infant: A View from Psychoanalysis and Developmental Psychology* (New York: Basic Books, 2000). Daniel N. Stern, *The Present Moment in Psychotherapy and Everyday Life* (New York: W.W. Norton & Company, 2004).

⁶⁰ Stern, *The Present Moment in Psychotherapy and Everyday Life*, 64.

Vitality affects enable the feeling of being alive that arises from the dynamic shifts and changes in our existence.⁶¹ At the level of vitality affects, being alive is a constant flow of different forces of approaching, fading away, expanding, contracting, gliding, exploding, and so on. The body – its muscles, tissues and cavities – are in constant movement. Even when being still, the heartbeats and the movements of breathing continue.

In singing, as well as in dance, this constant flow of vitality affects is turned into an art form. Stern has noted that these kinds of art forms can be abstract in a way that they do not require having any specific content in order to be expressive. Nor do these abstract art forms have to express categorical affects (like sadness or joy) in order to be expressive. Instead, they can reveal *the way* of feeling rather than the content of it.⁶² A singer can shape, refine, and fine tune her singing with vitality affects by making subtle nuances to her performance. In this way she creates her own personal interpretation of a song.⁶³ Stern argues that an artistic performance can be distinguished from a merely technical one by the fact that in artistic performance the written notes or dance steps are fine-tuned with vitality affects.⁶⁴ In sheet music the dynamic markers, like “forte,” “pianissimo,” “crescendo,” and “staccato,” represent the vitality forms.⁶⁵

Vitality is not only some extra feature of the objects and contents perceived. On the contrary. Stern argues that in the neural networks of the brain, the dynamic vitality strand and the content modality strand are intertwined. The first one of these is, according to Stern, the most fundamental and primary one. He writes: “Without the dynamic vitality strand, the content modality records would be digital and would never take on the analogic, dynamic flow of human activity. There would be no flow, no vitality, and no aliveness.”⁶⁶

When reflecting on my own somaesthetic experiences as a listener I can notice that the singer’s voice and expression are intertwined in the experience. I do not hear the singer’s voice first and only after that feel the vital qualities of the singer’s expression. Instead, these two elements – the singer’s voice (as an auditive sensation) and her expression (as embodied vital qualities) seem

⁶¹ Stern, *The Interpersonal World of the Infant*, 156.

⁶² Stern, *The Interpersonal World of the Infant*, 56 and *The Present Moment in Psychotherapy and Everyday Life*, 66.

⁶³ Stern, *The Present Moment in Psychotherapy and Everyday Life*, 66.

⁶⁴ Stern, *The Present Moment in Psychotherapy and Everyday Life*, 67.

⁶⁵ Stern, *Forms of Vitality*, 82. The concept of vitality affects has been used in the research of music before, see e.g. Hallgjerd Aksnes, “Music and Its Resonating Body,” in *Musical Signification: Between Rhetoric and Pragmatics*, eds. Gino Stefani, Eero Tarasti and Luca Marconi (Bologna: clueb, 1998).

⁶⁶ Stern, *Forms of Vitality*, 25.

to be one. I can shift my focus between them, but cannot separate them from each other entirely. This is even more so when I sense my own singing or speaking in a somatically aware manner. In my experience the vibration of vocal sounds, inner movements of vocalizing, and affects are united. I argue that the vital realm of experience – namely expression – is usually emphasized in the somaesthetic vocal experience. Proprioceiving may distance us from the song as an art object, but it makes us more receptive to the artist's (or our own) expression. The main focus is no longer on the relationship between a human being and an art object. Instead, the focus is on the human being's aesthetic, vocal, and bodily relation to other human beings (or to herself).

Intersubjectivity of Listening with the Whole Body

“[T]o feel with the body is probably as close as anyone can ever get to resonating with another person.”⁶⁷

It has been argued that in the proprioceptive realm of experience not only is the object of experience private but so is the experience as well. Nevertheless, we can judge, compare and discuss the aesthetic qualities of our experiences and achieve some kind of common understanding.⁶⁸ The way I see it is that in listening as well as in vocalizing there are both the subjective and the intersubjective dimensions at play.

To perceive singer's expression is not just to listen to the performance with ears. It is to listen to the performance with the whole body. Philosopher Don Ihde has summarized this kind of listening insightfully: “Phenomenologically I do not merely hear with my ears, I hear with my whole body. My ears are at best the focal organs of hearing.”⁶⁹ In listening with the whole body the listener does not merely try to reach an outside object and its acoustic details with her ears. Instead, she turns her focus to her body's proprioception and perceives the listening with it.

The bodily roots of listening have been brought out before. For example, Tom Bruneau's empathetic listening, Arnie Cox's mimetic hypothesis, Simon Frith's fellow feeling, Theo van Leeuwen's experiential meaning potential, and David Michael Levin's preconceptual listening have many similarities to

⁶⁷ John Blacking, *How Musical is Man?* (London: Faber and Faber, 1973), 111.

⁶⁸ Montero, “Proprioception as an Aesthetic Sense,” 234.

⁶⁹ Don Ihde, *Listening and Voice: A Phenomenology of Sound*. (Athens, Ohio: Ohio University Press, 1976), 45.

the matters presented here.⁷⁰ The neurobiological theory of mirror neurons has, for its part, strengthened the arguments of listening being fundamentally bodily-based intersubjective activity.⁷¹ The proprioceptive listening or “listening with the whole body” has been discussed before, for example, in the studies of singing, music, soundscapes, and phenomenology.⁷² For singers and singing teachers listening with the whole body can be an essential technique. For example, a Finnish singing pedagogue Ritva Eerola has distinguished “listening with just ears” and “listening with the whole body” as being two different levels of listening. The first one of these is, according to her, focused on the “surface qualities” of a singer’s voice, for example on the beautiful timbre of the voice. The second one, instead, goes deeper. The listener can perceive, for example, how balanced or tense the act of singing has been. These qualities can be felt and understood in the listener’s very own body.⁷³

Many developed singers have learned this “inner way” of sensing and understanding their own as well as other people’s vocal expressions. Yet, one does not have to be a singer in order to develop the listening skills of vocal music. Non-singing listeners can develop their ability to listen with their whole bodies as well. Maxine Sheets-Johnstone, a dancer and a philosopher, has stated that the creation of meaning is related to the fact that we have basically quite similar tactile-kinesthetic bodies. We can understand the articulatory gestures of each other because we have an understanding of how these gestures are

⁷⁰ Tom Bruneau, “Empathy and Listening,” in *Listening*, eds. Andrew D. Wolvin and Carolyn Gwynn Coakley (Dubuque, ia: Wm. C. Brown Company Publishers, 1982). Arnie Cox, “The Mimetic hypothesis and embodied musical meaning,” *Musicae Scientiae* 5, no. 2, (2001). Simon Frith, *Performing Rites: On the Value of Popular Music* (Cambridge, ma: Harvard University Press, 1996), 205–206. Theo van Leeuwen, *Speech, Music, Sound* (London: Macmillan Press Ltd, 1999), 139–140. David Michael Levin, *The Listening Self: Personal Growth, Social Change, and the Closure of Metaphysics* (New York: Routledge, 1989), 21–22.

⁷¹ E.g. Arnie Cox, “Hearing, Feeling, Grasping Gestures,” in *Music and Gesture*, eds. Anthony Gritten and Elaine King (Aldershot, Hampshire: Ashgate, 2006), 48. Istvan Molnar-Szakacs and Katie Overy, “Music and Mirror Neurons: From Motion to ‘E’motion,” *SCAN (Social Cognitive and Affective Neuroscience)* 1, (2006).

⁷² E.g. Eidsheim, *Sensing Sound*, Kindle location 3192–3295. Ihde, *Listening and Voice*. Marja-Leena Juntunen and Leena Hyvönen, “Embodiment in Musical Knowing: How Body Movement Facilitates Learning within Dalcroze Eurhythmics,” *British Journal of Music Education* 21, no. 2 (2004). Andra McCartney, “Soundscape Works, Listening, and the Touch of Sound,” in *Aural Cultures*, ed. Jim Drobnick (Toronto: yyz Books, 2004), 179.

⁷³ Ritva Eerola, “Laulajan arviointi – makuasia vai korvan harjaantuneisuus,” *Laulupedagogi* 2007–08 (2008), accessed December 17, 2008, <http://www.provoce.suntuubi.com/?cat=23>.

produced in the body and how they feel inside the body.⁷⁴ The vitality affective qualities used in singing (like “tightness” or “laboriousness”) are not related only to singing. They are related to all bodily actions. Therefore I could understand a singer’s vocal expression, at least to some extent, even if I had never sung in my whole life. Maybe it could be said that some singing styles (like classical singing) require a lot of practice – not only from the singer – but also from the listeners as well. Maybe some of the singing styles that do not “touch” me remain unfamiliar to me because they embody the kind of attitudes and skills I cannot understand with my own body.

Singing and listening are, obviously, quite different bodily acts that require different sets of bodily skills.⁷⁵ But here I want to emphasize the intersubjective possibilities of vocal expression and listening. As bodily beings, we can understand each other, even if not perfectly. To some extent, we can create common meanings and judgments of what we have performed and perceived. The way I see it is that even if listening and performing music may be considered as different bodily acts, there is still some kind of symmetry between them.⁷⁶

Listening with the whole body is seen as problematic in the area of musicology and aesthetics probably because of the unclear distinction between the object of the experience and the bodily reactions in the process of listening. For example, in research on music and emotions it has been noticed that the emotions expressed by the music and the emotions evoked by the music are easily merged in the experience of a listener.⁷⁷ When listening with my whole body, I do not only listen to another person’s vocal expression, but at the same time I “listen” to my own body as well. I can understand another person’s vocal expression inasmuch I can proprioceive the embodied qualities it contains. In this way, the experience is subjective and intersubjective at the same time. The outer world appears to me in the ways my inner reality can understand it.

The experience of listening arises from the interaction of sound and body. We have no way of perceiving the sound without our very own body and its

⁷⁴ Maxine Sheets-Johnstone, *The Primacy of Movement* (Amsterdam & Philadelphia: John Benjamins Publishing Company, 1999), xxviii, 378, 387.

⁷⁵ Cf. Maus, “Somaesthetics of Music,” 19.

⁷⁶ See also Richard Shusterman, “Body Consciousness and Music: Variations on Some Themes,” *Action, Criticism & Theory for Music Education* 9, no. 1 (2010), 101–102.

⁷⁷ E.g. Alf Gabrielsson, “Emotion Perceived and Emotion Felt: Same or Different?” *Musicae Scientiae*, Special issue 2001–2002, (2002). Klaus R. Scherer and Marcel R. Zentner, “Emotional Effects of Music: Production Rules,” in *Music and Emotion: Theory and Research*, eds. Patrik N. Juslin and John A. Sloboda (Oxford: Oxford University Press, 2001).

unique sensations, affects, and reactions. In vocal somaesthetics this interaction will form the focus of attentive study. This way the usually implicit aspects of sensing vocal sound could be made explicit.

Conclusions

In this article I have suggested some possible starting points for vocal somaesthetics. Vocal somaesthetics could be described as an approach that focuses on the bodily and experiential dimensions of producing vocal sounds and listening to them. Proprioception is an important part of vocal somaesthetic experience – in both vocalizing and listening, and this article has provided arguments to defend the aesthetic potential and value of proprioceptive perceptions. In traditional aesthetics, the main focus has been on the relation of a human being to the work of art. I suggest that vocal somaesthetics could, instead, also be concerned with the aesthetic, vocal and bodily relation of a human being to other human beings as well as to him/herself. This kind of somaesthetic perspective could offer a great potential to the study of human vocal behavior. It has been argued that proprioception lacks the intersubjective dimension. I disagree with this. With proprioception, we can open up to the world and to other people as well. When listening with the whole body, we can perceive and understand the vocal expression of another human being – the motional, affective and sonorous aspects of it. This can provide us a deep understanding of the bodily-vocal reality of that other person. When listening with the whole body we become aware of our own reactions and sensations as well. In this way, we always listen to the world and to other people in relation to our own bodies and selves.

Inspired by pragmatist meliorist philosophy, Shusterman's somaesthetics is transformational by its nature. It does not try to justify the established classifications of art, but instead, aims to broaden the view of what kinds of experiences, objects, practices, and events could be seen as aesthetic.⁷⁸ I believe the field of vocal somaesthetics should be transformational as well. It should not be limited to the established vocal arts alone. Almost any kind of vocal behavior could be approached from the aesthetic point of view. For example, speaking in our everyday life would be an interesting object for examination, and so would be the vocal practices outside the realms of language and music. Philosopher Adriana Cavarero has pointed out the need for the study of vocality, which includes all the multiple manifestations of the voice. She has argued for the

⁷⁸ Shusterman, "Aesthetic Experience," 220.

study of the voice in itself, independently of language.⁷⁹ This kind of research has started to take place recently in the interdisciplinary field of *voice studies* that approaches human voice from new perspectives without limiting it only to the domains of speaking and singing.⁸⁰ Research in vocal somaesthetics could contribute to this research by examining the aesthetic dimensions of all kinds of vocalizations that human being is capable of producing. As Shusterman has pointed out: “Our auditory appreciation of somatic style goes beyond the voice of speech.” The ways of laughing, crying, sighing, coughing, gasping, sneezing, grunting, burping, and snoring are also parts of our somatic style.⁸¹

Shusterman presents three branches of somaesthetic research: analytic, pragmatic and practical.⁸² Applying these distinctions to vocal somaesthetics, the *analytic* dimension in vocal somaesthetics could include, for example, descriptions and analysis of bodily-vocal experiences, critical examination of bodily-vocal conventions and manners, questions about the somatic and experiential dimensions of language and music, and numerous questions about the relation of vocal expression to culture, norms and environment as well as to other people. The *pragmatic* branch in the context of vocal somaesthetics could include, for example, the critical examination of previous vocal techniques and pedagogies as well as developing and suggesting new kinds of vocal approaches, while the *practical* branch of vocal somaesthetics would put these vocal techniques into actual vocal practice.

I believe that vocal somaesthetics should also take notice of the need to democratize vocal expression, that is to say, the need to develop practices for everyone to enjoy their voices regardless of the individual vocal skills or musicality in the traditional sense. Vocal behaviour in our culture is quite regulated, with strict (though often implicit) conventions about who can use their voices, where and in what ways. As human beings we, however, have a need to express our emotions and thoughts vocally. In addition, we have a vast vocal potential for this kind of expression – a human being is capable of producing a huge variety of different vocal sounds. Perhaps it is the advanced and quite

⁷⁹ Adriana Cavarero, *For More than One Voice: Toward a Philosophy of Vocal Expression* (Stanford: Stanford University Press, 2005), 12.

⁸⁰ Konstantinos Thomaidis and Ben Macpherson, *Voice Studies: Critical Approaches to Process, Performance and Experience* (New York: Routledge, 2015). Ben Macpherson and Konstantinos Thomaidis, “Can It Be You That I Hear?” *Journal of Interdisciplinary Voice Studies* 1, no.1 (2016).

⁸¹ Shusterman, *Thinking through the Body*, 327.

⁸² Richard Shusterman, “Somaesthetics: A Disciplinary Proposal,” *Journal of Aesthetics and Art Criticism* 57, no. 3 (1999), 304–307. See also Shusterman, *Body Consciousness*, 23–30, and *Thinking through the Body*, 42–45.

complex rules of speaking (language) and singing (music) that have overruled the more basic bodily-vocal needs in our culture. Konstantinos Thomaidis and Ben Macpherson, researchers of voice and theatre, go as far as speaking of the “tyrannies of understanding” that dominate the human voice by restraining it to the fields of language and music.⁸³ In vocal somaesthetics these questions should be taken into account on the level of theory as well as practice.

The broad aim of vocal somaesthetics is to create a comprehensive understanding of human being as a bodily, sentient and vocal being. It will illuminate the human being’s diverse vocal, sensory and aesthetic relations to his/ her environment and to other people. It will also reflect on the contemporary Western individual’s relation to his/her own body and voice, and introduce ways to develop this relationship by suggesting new practices for cultivating and enhancing the vocal experience. Vocal somaesthetics will consider human vocal behavior as somatic experience in all its manifestations – inside and outside of language and music. This field of study will also strive to democratize the vocal conventions by questioning the prevailing vocal norms and by studying the vocal practices that have remained marginal in our culture.

Bibliography

- Acitores, Alicia Peñalba. “Towards a Theory of Proprioception as a Bodily Basis for Consciousness.” In *Music and Consciousness: Philosophical, Psychological, and Cultural Perspectives*, 215–231. Edited by David Clarke and Eric Clarke. Oxford: Oxford University Press, 2011.
- Aksnes, Hallgjerd. “Music and Its Resonating Body.” In *Musical Signification: Between Rhetoric and Pragmatics*, 173–182. Edited by Gino Stefani, Eero Tarasti and Luca Marconi. Bologna: clueb, 1998.
- Austern, Linda Phyllis. “Introduction.” In *Music, Sensation, and Sensuality*, 1–14. Edited by Linda Phyllis Austern. New York: Routledge, 2002.
- Bartczak, Kacper. “Bodies that Sing: Somaesthetics in the American Poetic Tradition.” *Pragmatism Today* 3, no. 2 (2012): 29–39.
- Barthes, Roland. “The Grain of the Voice.” In *Image Music Text: Essays Selected and Translated by Stephen Heath*, 179–189. London: Fontana Press, 1977. http://dss-edit.com/prof-anon/sound/library/Barthes__Roland_-_Image_Music_Text.pdf.
- Blacking, John. *How Musical is Man?* London: Faber and Faber, 1973.

⁸³ Thomaidis and Macpherson, *Voice Studies*, 5.

- Bruneau, Tom. "Empathy and Listening." In *Listening*, 185–200. Edited by Andrew D. Wolvin and Carolyn Gwynn Coakley. Dubuque, Iowa: Wm. C. Brown Company Publishers, 1982.
- Cavarero, Adriana. *For More than One Voice: Toward a Philosophy of Vocal Expression*. Stanford: Stanford University Press, 2005.
- Cox, Arnie. "The Mimetic Hypothesis and Embodied Musical Meaning." *Musicae Scientiae* 5, no. 2 (2001): 195–204.
- Cox, Arnie. "Hearing, Feeling, Grasping Gestures." In *Music and Gesture*. Edited by Anthony Gritten and Elaine King. Aldershot, Hampshire: Ashgate, 2006, 45–60.
- Dolar, Mladen. *A Voice and Nothing More*. Cambridge, ma: The mit Press, 2006.
- Dunn, Leslie C., and Nancy A. Jones, eds. *Embodied Voices: Representing Female Vocality in Western Culture*. Cambridge: Cambridge University Press, 1994.
- Eerola, Ritva. "Laulajan arviointi – makuasia vai korvan harjaantuneisuus." *Laulupedagogi* 2007–08 (2008), <http://www.provoce.suntuubi.com/?cat=23>.
- Eidsheim, Nina Sun. *Sensing Sound: Singing & Listening as Vibrational Practice*. Durham & London: Duke University Press, 2015, Kindle edition.
- Frith, Simon. *Performing Rites: On the Value of Popular Music*. Cambridge, ma: Harvard University Press, 1996.
- Gabrielsson, Alf. "Emotion Perceived and Emotion Felt: Same or Different?" *Musicae Scientiae*, Special Issue 2001–2002 (2002): 123–147.
- Gallagher, Shaun. "Bodily Self-Awareness and Object Perception," *Theoria et Historia Scientiarum: International Journal for Interdisciplinary Studies* 7, no. 1 (2003). <http://pegasus.cc.ucf.edu/~gallaghr/theoria03.html>.
- Gallagher, Shaun. "Somaesthetics and the Care of the Body," *Metaphilosophy* 42, no. 3 (2011): 305–313.
- Holgersen, Sven-Erik. "Body Consciousness and Somaesthetics in Music Education." *Action, Criticism & Theory for Music Education* 9, no. 1 (2010): 32–44.
- Ihde, Don. *Listening and Voice: A Phenomenology of Sound*. Athens, Ohio: Ohio University Press, 1976.
- James, William. *The Principles of Psychology*. Cambridge: Harvard University Press, 1983.
- Juntunen, Marja-Leena, and Leena Hyvönen. "Embodiment in Musical Knowing: How Body Movement Facilitates Learning within Dalcroze Eurhythmics." *British Journal of Music Education* 21, no. 2 (2004): 199–214.
- Järviö, Päivi. "The Singularity of Experience in the Voice Studio: A Dialogue with Michel Henry." In *Voice Studies: Critical Approaches to Process, Performance and Experience*, 25–37. Edited by Konstantinos Thomaidis and Ben Macpherson. New York: Routledge, 2015.
- Kalanti, Timo. *Ruumis ja rauta: Esseitä esineiden sosiaalisuudesta*. Helsinki: University of Helsinki, 2009.

- Klemola, Timo. *Taidon filosofia – filosofin taito*, 2nd Edition. Tampere: Tampere University Press, 2005.
- Leder, Drew. *The Absent Body*. Chicago: The University of Chicago Press, 1990.
- Leeuwen, Theo van. *Speech, Music, Sound*. London: Macmillan Press Ltd, 1999.
- Levin, David Michael. *The Listening Self: Personal Growth, Social Change, and the Closure of Metaphysics*. New York: Routledge, 1989.
- Liimakka, Satu. “Re-Embodied: Young Women, the Body Quest and Agency in the Culture of Appearances.” PhD diss., University of Helsinki, 2013.
- Macpherson, Ben, and Konstantinos Thomaidis. “Can It Be You That I Hear?” *Journal of Interdisciplinary Voice Studies* 1, no.1 (2016): 3–8.
- Maus, Fred Everett. “Somaesthetics of Music.” *Action, Criticism, and Theory for Music Education* 9, no. 1 (2010): 10–25.
- McCartney, Andra. “Soundscape Works, Listening, and the Touch of Sound.” In *Aural Cultures*, 179–185. Edited by Jim Drobnick. Toronto: yyz Books, 2004.
- McKerrell, Simon. “An Ethnography of Hearing: Somaesthetic Hearing in Traditional Music.” In *The Body is the Message, Volume 2*, 76–89. Graz: Grazer Universitätsverlag Leykam, 2012. https://www.academia.edu/1074033/_An_ethnography_of_hearing_somaesthetic_hearing_in_traditional_music_.
- Mehling, Wolf E., Viranjini Gopisetty, Jennifer Daubenmier, Cynthia J. Price, Frederick M. Hecht, and Anita Stewart. “Body Awareness: Construct and Self-Report Measures.” *PLoS ONE* 4, no. 5 (2009). <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0005614>.
- Molnar-Szakacs, Istvan, and Katie Overy. “Music and Mirror Neurons: From Motion to ‘E’motion.” *scan (Social Cognitive and Affective Neuroscience)* 1 (2006): 235–241.
- Montero, Barbara. “Proprioception as an Aesthetic Sense.” *Journal of Aesthetics and Art Criticism* 64, no. 2 (2006), 231–242.
- Neumark, Norie. “Introduction: The Paradox of Voice.” In *voice: Vocal Aesthetics in Digital Arts and Media*, xv–xxxiii. Edited by Norie Neumark, Ross Gibson, and Theo van Leeuwen. Cambridge: The mit press, 2010a.
- Neumark, Norie. “Doing Things with Voices: Performativity and Voice.” In *voice: Vocal Aesthetics in Digital Arts and Media*, 95–118. Cambridge: mit Press, 2010b.
- Parviainen, Jaana. *Meduusan liike: Mobiiliajan tiedonmuodostuksen filosofiaa*. Helsinki: Gaudeamus, 2006.
- Scherer, Klaus R., and Marcel R. Zentner. “Emotional Effects of Music: Production Rules.” In *Music and Emotion: Theory and Research*, 361–392. Edited by Patrik N. Juslin, and John A. Sloboda. Oxford: Oxford University Press, 2001.
- Scotto Di Carlo, Nicole. “Internal Voice Sensitivities in Opera Singers.” *Folia Phoniatica et Logopaedica* 46, no. 2 (1994): 79–85.

- Shaviro, Steven. "A Voice and Nothing More." *The Pinocchio Theory*, last modified April 14, 2006, <http://www.shaviro.com/Blog/?p=489>.
- Sheets-Johnstone, Maxine. *The Primacy of Movement*. Amsterdam: John Benjamins Publishing Company, 1999.
- Shusterman, Richard. "Somaesthetics: A Disciplinary Proposal." *Journal of Aesthetics and Art Criticism* 57, no. 3 (1999): 299–313.
- Shusterman, Richard. "Aesthetic Experience: From Analysis to Eros." *Journal of Aesthetics and Art Criticism* 64, no. 2 (2006): 217–229.
- Shusterman, Richard. *Body Consciousness: A Philosophy of Mindfulness and Somaesthetics*. Cambridge: Cambridge University Press, 2008.
- Shusterman, Richard. "Body Consciousness and Music: Variations on Some Themes." *Action, Criticism & Theory for Music Education* 9, no. 1 (2010): 93–114.
- Shusterman, Richard. "Soma, Self, and Society: Somaesthetics as Pragmatist Meliorism." *Metaphilosophy* 42, no. 3 (2011): 314–327. <http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9973.2011.01687.x/full>.
- Shusterman, Richard. *Thinking through the Body: Essays in Somaesthetics*. Cambridge: Cambridge University Press, 2012.
- Silverman, Kaja. *The Acoustic Mirror: The Female Voice in Psychoanalysis and Cinema*. Bloomington: Indiana University Press, 1988.
- Stark, James. *Bel Canto: A History of Vocal Pedagogy*, 2nd Edition. Toronto: University of Toronto Press, 2003.
- Stern, Daniel N., *The Interpersonal World of the Infant: A View from Psychoanalysis and Developmental Psychology*. New York: Basic Books, 2000.
- Stern, Daniel N., *The First Relationship: Infant and Mother*. Cambridge: Harvard University Press, 2002.
- Stern, Daniel N., *The Present Moment in Psychotherapy and Everyday Life*. New York: W.W. Norton & Company, 2004.
- Stern, Daniel N., *Forms of Vitality: Exploring Dynamic Experience in Psychology, the Arts, Psychotherapy, and Development*. Oxford: Oxford University Press, 2010.
- Sundberg, Johan. *The Science of the Singing Voice*. Illinois: Northern Illinois University Press, 1987.
- Tarvainen, Anne. "Laulajan ääni ja ilmaisu: Kehollinen lähestymistapa laulajan kuuntelemiseen, esimerkkinä Björk." PhD diss., Tampere: Tampere University Press, 2012.
- Tarvainen, Anne. "Vokaalinen soomaestetiikka: Kehotietoisuuden esteettiset mahdollisuudet ihmisen äänenkäytössä ja kuuntelemisessa," *Etnomusikologian Vuosikirja* 28 (2016), 1–39, <http://etnomusikologia.journal.fi/article/view/60239/21141>.
- Thomaidis, Konstantinos, and Ben Macpherson. *Voice Studies: Critical Approaches to Process, Performance and Experience*. New York: Routledge, 2015.

Tiainen, Milla. "Becoming-Singer: Cartographies of Singing, Music-Making and Opera." PhD diss., University of Turku, 2012.

Vannini, Phillip, Dennis Waskul, and Simon Gottschalk. *The Senses in Self, Society, and Culture: A Sociology of the Senses*. New York: Routledge, 2013.

Williams Simon J., and Gillian Bendelow. *The Lived Body: Sociological Themes, Embodied Issues*. New York: Routledge, 1998.