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# (Re)Educating the Senses: Multimodal Listening, Bodily Learning, and the Composition of Sonic Experiences

Steph Ceraso

*In a certain sense every experience should do something to prepare a person for later experiences of a deeper and more expansive quality. That is the very meaning of growth, continuity, reconstruction of experience.*

—John Dewey, *Experience and Education* (47)

If asked to identify the body part that is associated with listening, most people would point to their ears without hesitation. Despite the deeply entrenched association between the ears and the act of listening, however, sound is not experienced exclusively through a single sense; other parts of the body can be engaged during a sonic encounter. As Steven Connor notes, “It is said that the deaf Beethoven gripped a stick between his teeth to convey the sounds of the piano to him. Similarly, Thomas Edison would chomp on the wood of a gramophone in order to hear faint overtones that, as he claimed in a 1913 interview, were normally lost before they reached the inner ear” (168–69). It is also possible to feel sound in one’s stomach, throat, legs, and other areas of the body—a common occurrence at clubs where music is amplified. As these examples suggest, identifying the ear as the body part that enables listening does not capture all that is involved in experiencing a sonic event. Listening is a multisensory act.<sup>1</sup>

Yet, when listening is taught, it is usually treated as the practice of attending to audible words or sounds in order to make meaning of them. That is, teaching listening often involves teaching students to approach sound as another form of text; sound is simply more content to be interpreted. In addition to teaching students what

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sound *means*, I argue that it is critical to teach them how sound *works and affects*. As the growing body of interdisciplinary “sound studies” scholarship has made clear, sound is playing an increasingly important role in a wide range of texts, products, environments, and experiences (Sterne).<sup>2</sup> Thus, it is imperative that teacher-scholars of rhetoric and composition—and English studies more broadly—develop listening practices that can help students cultivate a heightened sensitivity to sound in different contexts. As I will argue, thoughtfully engaging and composing with sound requires listeners to attend to how sound works with and against other sensory modes to shape their embodied experiences.

This essay is an attempt to reimagine the ways that we teach listening to account for the multiple sensory modes through which sound is experienced in and with the body. I offer the concept of *multimodal listening* to expand how we think about and practice listening as a situated, full-bodied act. Teaching students to approach sound as an embodied event, as opposed to something that is heard exclusively through the ears, can make them more savvy *consumers* of sound; it can help students develop a deeper understanding of how sound is manipulating their feelings or behaviors in different situations. Additionally, because attending to the multimodal aspects of sonic encounters can provide information about how sound works as a mode of composition to create particular effects and affects—intentional or unintentional—students can use this information to become more thoughtful *producers* of sound. I see multimodal listening as a means of preparing students to become sensitive, reflective participants in and designers of sonic experiences, both digital and nondigital.

The aim of this essay is twofold: (1) to illustrate how through multimodal listening practices we might retrain our bodies to be more aware, alert, and attuned to sonic events in all of their complexity; and (2) to examine how incorporating multimodal listening practices into the composition classroom can enrich students’ multimodal composing practices. I argue that the heightened sonic experiences associated with multimodal listening practices can critically and creatively inform how listeners consume and compose with sound, and that these practices are particularly useful in the teaching of multimodal composition.

In what follows, I first introduce the key terms and concepts that inform my listening pedagogy. Then, to illustrate what multimodal listening entails as a practice, I discuss deaf percussionist Dame Evelyn Glennie’s listening training, which she has described in numerous autobiographical texts and in a personal interview I conducted with her in 2011. Drawing from Glennie’s experiences, I elaborate on the key role of the body in multimodal listening and explore why reflecting on past bodily experiences with sound is crucially important when teaching students to listen multimodally. I conclude by proposing some specific ways that multimodal listening can enhance students’ multimodal composing practices, elucidating why the composition classroom serves as a productive learning environment for the teaching of

multimodal listening. My hope is that the ideas presented here will inspire teachers from a range of backgrounds to design assignments that defamiliarize, challenge, and build upon students' previous experiences with listening.

#### TOWARD AN EXPANSIVE APPROACH TO LISTENING

The pedagogy I outline in this essay is based on what I call multimodal listening, a term that is intended to draw attention to listening as an expansive multisensory practice. My choice to highlight the embodied, sensory aspects of listening with this term is distinctly different from the majority of scholarship on multimodality. Scholars—most notably Gunther Kress, Theo Van Leeuwen, and the New London Group<sup>3</sup>—tend to discuss multimodal communication practices through a semiotic framework. The end goal of this research on multimodality is meaning making. As Kress writes in *Multimodality*, “There are domains beyond the reach of language, where it is insufficient, where semiotic-conceptual work has to be and is done by means of other modes” (15). In rhetoric and composition, multimodality has been associated primarily with making meaning of digital media, though this association is slowly changing. Scholars such as Jody Shipka and Jason Palmeri have argued that equating multimodality with the digital gives our students a falsely narrow sense of the complexity of multimodal experience (Shipka, *Toward*; Palmeri, *Remixing*). Indeed, rhetoric and composition scholars are starting to recognize and embrace more capacious notions of multimodal interaction. In a recent *College English* article titled “Evocative Objects,” for instance, Doug Hesse, Nancy Sommers, and Kathleen Yancey use ordinary, nondigital material things “to summon a network of associations and evoke cross-disciplinary inquiries, using both visual and verbal resources in an effort to make meaning” (325).

Although rhetoric and composition scholarship is beginning to acknowledge a wider range of nondiscursive materials and modes, the ultimate pursuit of meaning making in this work positions multimodal approaches in the same realm as the discursive: a realm where objects are analyzed and interpreted. I argue that alongside and in addition to semiotic approaches to multimodality, it is necessary to address the affective, embodied, *lived* experience of multimodality in more explicit ways. Sound is an especially ideal medium for better understanding multimodal experiences because unlike visual or tactile experiences, interactions between sound and the body depend on vibrations. This vibratory aspect of sound is one of the reasons that listening, though it is not usually treated as such, is a multimodal event that involves the synesthetic convergence of sight, sound, and touch. That is, sound is often experienced via multiple sensory modes—it can be seen, heard, and felt. My term multimodal listening encompasses both the semiotic and the embodied, sensory aspects of multimodal experiences, which I see as significantly interconnected.

As I explore multimodal listening practices in what follows, my aim is to expand and deepen the ways that we think about both listening and multimodality in our scholarship and teaching.

*John Dewey and the Esthetic*

To distinguish multimodal listening from listening practices that depend on the ears exclusively, it might be useful to think of listening to and for audible sound as *ear-ing*. Multimodal listening moves away from organ-specific definitions and instead conceives of listening as a practice that involves attending to not only the sensory, embodied experience of sound, but to the material and environmental aspects that comprise and shape one's embodied experience of sound. Unlike ear-centric practices in which listeners' primary goal is to hear and interpret audible sound (often language), multimodal listening amplifies the ecological relationship between sound, bodies, and environments. Broadly speaking, multimodal listening is a bodily practice that approaches sound as a holistic experience.

Experience can be a tricky concept to discuss in relation to listening practices because it seems like a generic term for everything we do. If you are alive, you are experiencing; or to put it another way, you are never *not* experiencing. However, what is significant about the role of experience in cultivating multimodal listening practices is the *quality* of experience. As John Dewey emphasizes in the epigraph that begins this essay, the quality of an experience is essential to facilitating growth and learning in subsequent experiences (*Experience* 47). Throughout this article I will rely on Dewey's *Experience and Education* and *Art as Experience*—two texts that are relevant to my argument due to their detailed discussions of the relationship between experience and learning.<sup>4</sup> Specifically, I want to suggest that multimodal listening practices are a means of achieving high-quality, educational, or what Dewey calls “esthetic” experiences (*Art* 18).<sup>5</sup>

To better understand what counts as an esthetic experience, consider this example: I often listen to the same album on repeat when I am using my laptop. The miniscule computer speakers make the sound a bit flat and tinny, but that does not matter much to me because I am listening mainly for content. At first I attend closely to the lyrics and music, the pace and rhythm of the songs. I think about the meaning of the songs and the way they make me feel, and I sometimes connect them to my own memories. After repeated experiences with these songs, though, I do not find them as stimulating, and they tend to fade into the background. Because I am no longer actively learning or growing from each listening, one could say that this particular listening experience has become habitual, routinized. It has decreased in quality. However, if I buy tickets to see the band play live, the quality of my experience with the album increases. I am jarred from my listening routine by immersing myself in a new listening environment. The club I am in is crowded with moving

bodies, and we are all participating in the performance. By screaming out lyrics and yelling and clapping, we are shaping the sonic experience as it is unfolding. My senses are bombarded with new sights, smells, and sounds. I can feel vibrations from the massive speakers near the stage. I am engaged fully in this experience, which involves much more than my ears and thoughts.

This kind of “heightened vitality” is what Dewey refers to as an “esthetic” experience. As he writes, “Instead of signifying being shut up within one’s own private feelings and sensations, it [an esthetic experience] signifies active and alert commerce with the world; at its height it signifies complete interpenetration of self and the world of objects and events” (*Art* 18). When I listen to the album on my laptop again, my listening experience is colored by my experience at the concert. I notice things I did not before—particular lyrics or beats that were emphasized more in the concert than in the recorded version of the album. I am also aware of the limitations of my new listening environment. The recorded version never changes or surprises me. I cannot feel the music as I did at the concert, or participate in the sonic event in the same way. By reinvigorating my senses, the immersive concert experience has sharpened my awareness of sound’s possibilities and impossibilities in my subsequent listening experiences with the album. Dewey views the reinvigoration associated with esthetic experiences “as participative [. . .] knowing, doing, feeling, and making sense are inseparable” (McCarthy and Wright 17). Esthetic experiences are holistic in that they do not separate mind and body or isolate one sense from another; they involve a heightened sensitivity to the experience in its entirety. Similarly, I suggest that multimodal listening practices involve a full-bodied awareness that heightens listeners’ experience of the sensory, material, and environmental aspects of sonic interactions.

I am not concerned with esthetic experiences for their heightened vitality alone, however. Like Dewey, I am interested in how people might use the newfound awareness and sensitivity associated with esthetic experiences—in what people might learn, do, or make with their experiences of heightened vitality. As James Scott Johnston notes, “Dewey often connects aesthetic inquiry to making and doing: art, music, building, designing, and developing” (15). I find it significant that Dewey discovers so many connections between esthetic experience and the compositional arts. Throughout this article, then, I extend Dewey’s exploration of the relationship between esthetic experience and creative production to an examination of multimodal listening and sonic composing practices.

### *Evelyn Glennie’s Holistic Listening Practices*

To situate my examination of multimodal listening in a specific embodied experience, I focus on the listening practices of solo percussionist and composer Dame Evelyn Glennie. Glennie is a renowned musician who performs more than 100 concerts a year worldwide. Most notably, she was a featured performer at the Opening Ceremony

of the 2012 London Olympics (Glennie, Official Website). Glennie's experiences provide a valuable model for understanding listening as a multimodal event because they augment the expansive and esthetic nature of sonic experience that most people, particularly people with fully functioning auditory systems, tend to ignore.

For Glennie, ear-ing is not an option. In fact, she has received as much media attention for her deafness as she has for her music. The consistent highlighting of Glennie's deafness has depicted her as somewhat of an anomaly—as if the full-bodied listening practices she has developed apply only to her because she cannot hear. Rather than treat Glennie as a specialized case, I want to show that her multimodal listening practices are learned bodily habits that can be reproduced in any individual regardless of where he or she falls on the hearing continuum. Glennie's multimodal listening practices exemplify a capacious, inclusive form of listening that has the potential to change how people think about and interact with sound. As I will discuss in the next section, the ways in which Glennie approaches sonic experiences can help anybody (and any body) learn to expand his or her listening practices and become a more critical consumer of sound in everyday life. Further, Glennie's full-bodied listening techniques provide an excellent model for teaching multimodal listening practices in relation to composition, and can thus guide instructors in reimagining the role of listening in the composition classroom.

#### COME ON FEEL (AND SEE AND TOUCH) THE NOISE

Glennie's listening practices exemplify how touch, sight, and sound work together during sonic interactions, making explicit the multimodal aspects of listening that most people take for granted. For Glennie, listening is a practice that is grounded in the body. In Thomas Riedelsheimer's documentary *Touch the Sound* (2005), for example, there is a poignant moment when Glennie describes sound in visceral terms. She explains, "You feel it through your body, and sometimes it almost hits you in your face" (*Touch*). The next scene is a close-up shot of Glennie striking a gong with mallets. After reaching a crescendo, she stops making contact with the instrument but continues to stand directly in front of it. By lingering there, she indicates to the viewer that she can still feel the power—the material force—of the sonic vibrations after she has finished playing. As Glennie demonstrates in this scene, and as the synesthetic title of the film insists, interacting with sound can be a form of touch.

The tactile, bodily interaction with sound that is illustrated in this scene is something that Glennie has emphasized repeatedly in interviews and public talks, and *touching sound* seems to be a salient part of her multimodal listening practices. During my interview with Glennie, she characterized her interactions with powerful sounds as physical encounters. She describes sound as a kind of wind: "You almost feel as if your hair is actually moving and you're almost being sort of kicked back

and forth with the force of that sound” (Personal interview). Though listening to sound with one’s ears also depends on physical movement—as sound vibrations literally move the tympanic membrane (eardrum) to create rhythmic patterns that the brain can detect—Glennie is instead interested in how sound is experienced by the rest of the body.

Glennie’s fascination with the physical aspects of sonic interactions is rooted in the fact that the “living sensation” of sound is what has made her own listening education possible (Personal interview). Due to her deafness, she was taught to attend to how various kinds of sonic vibrations affected her body in different ways. In an essay posted to her website, for instance, Glennie discusses her early listening training and the importance of learning to detect vibrations. She writes, “I would stand with my hands against the classroom wall [. . .] I managed to distinguish the rough pitch of notes by associating where on my body I felt the sound” (“Hearing”). In her autobiography, *Good Vibrations*, she also describes “getting in touch with music” by sitting “with a clattery old portable tape recorder in my lap, one that vibrated as much as possible so I could experience the waves of sound through my body” (159). In this musical context, Glennie’s tactile experiences played a significant role in her listening education. She is not reflecting on the meaning of sound in these passages. Rather, she is thinking about how the force of sound is working—how it is transforming her body in various ways. Glennie’s listening experiences demonstrate that the initial encounter, the material point of contact, between sound and body is in part what makes multimodal listening a possibility. Her bodily listening practices provide her with experiential knowledge about how sound works as an affective mode of communication.

In addition to the vibratory, tactile experience of sound, the visual experience of sound is a prominent feature in Glennie’s multimodal listening practices. One of the ways that the film *Touch the Sound* attempts to capture the visual aspects of Glennie’s listening practices is by exaggerating her sensory interactions with environments. The camera often positions the audience in Glennie’s point of view and magnifies the visual details that surround her body. While the sounds associated with certain images are augmented for viewers with functioning ears, the magnification of visual detail makes it clear that Glennie is experiencing those sounds through her eyes. Some of the most subtle rhythms and movements of the life surrounding Glennie are captured by the lens of the camera, and seemingly, by Glennie herself. For instance, the camera zooms in on the details of rattling suitcase zippers, different kinds of shoes walking on a hard surface, and people bobbing their heads to the music of their iPods. Attending to the rhythm and movement in these visual encounters is a way for Glennie to listen to the sonic environment that she inhabits. It gives her a sense of the soundscape<sup>6</sup> without having to depend on auditory information.

The visual aspects of Glennie’s multimodal listening practices figure into her



own sonic compositions as well. Glennie often experiments with the relationship between sound and visible movement in her performances. As she told me during our interview, “If I want to play something quietly, sometimes I move my mallets but I’m not actually touching the instrument. So, the audience feels I’m playing extremely quietly, and they really do believe they’re hearing something even though nothing is coming out. It’s because they’re seeing the movement [. . .] that automatically gives them the feeling that sound is there.” By deliberately drawing attention to the movements of her mallets, Glennie tricks her audience into believing that those movements resulted in audible sound. Playing with the audience’s perception of sound enables Glennie to give the audience a glimpse into her own visual listening practices. Her anecdote also highlights the strong connection between sound and vision that most people unconsciously rely on when listening. Indeed, when Glennie performs her sonic compositions, the visual aspects of her performance are an important part of the audience’s listening experience. The speed or slowness with which Glennie moves her body as she plays, her facial gestures, and the way that she physically handles the instruments all contribute to how sound is being experienced by the audience.

Glennie’s listening practices illustrate that multimodal listening entails attending to both the bodily affects of sound and the multiple sensory modes that can be used to experience a sonic event. Though I have separated the tactile and visual ways of listening in the previous examples in order to emphasize how each sensory mode can be employed, I do not mean to suggest that they occur in isolation. On the contrary, sounds, sights, and tactile feelings are often experienced simultaneously during sonic interactions. Although Glennie has cultivated multimodal listening techniques in part to compensate for her diminished auditory capacity, attending to the synesthetic convergences that happen during sonic events is a practice that can help anyone cultivate more thoughtful, sensitive listening habits.

I realize that multimodal listening practices may seem unnecessary for people with functioning ears. If one can hear, then what is the point of using additional sensory modes to attend to sound? I argue that the kinds of multimodal listening practices Glennie uses are necessary and purposeful to everyone because, unlike ear-aiding, these practices enable listeners to achieve expansive sonic experiences that can lead to rich, meaningful sensory encounters. As John McCarthy and Peter Wright note, “In aesthetic experience, the lively integration of means and ends, meaning and movement, involving all our sensory and intellectual faculties is emotionally satisfying and fulfilling. Each act relates meaningfully to the total action and is felt by the experiencer to have a unity or a wholeness that is fulfilling” (58–59). When listeners attend to a sonic event with all of their senses, mundane everyday experiences can be transformed into esthetic experiences. Multimodal listening practices help listeners develop a heightened awareness of sound as an *ecological* event in which they are participating, or what McCarthy and Wright refer to as “a lively integration.” The

value in pursuing esthetic experiences with sound via multimodal listening is the change that occurs in the listener—the reinvigorated sensitivity of the individual’s embodied relationship to the sonic world. Indeed, this heightened sensitivity can deepen listeners’ understandings of how sound works and affects in different contexts, thus enhancing their abilities to use sound strategically in their own composing processes. Before describing how multimodal listening can strengthen multimodal composing pedagogy, it is first necessary to examine the sensory (re)education that is an essential part of teaching students to cultivate multimodal listening practices.

#### **MULTIMODAL LISTENING PEDAGOGY: BODILY LEARNING AND UNLEARNING**

Past experiences with sound have shaped our listening practices whether we are conscious of it or not, and the accumulation of these experiences has resulted in the formation of listening habits. A crucial aspect of multimodal listening instruction, then, is helping students *unlearn* the listening habits they have developed over time. Indeed, unlearning is an indispensable part of the learning process. As Cathy Davidson writes, “Learning is the constant disruption of an old pattern, a breakthrough that substitutes something new for something old. And then the process starts again” (5). Teaching students to listen multimodally involves undoing their habitual sensory habits and amplifying the multiple senses that can be used to attend to sonic interactions. Thus, multimodal listening instruction requires a feedback loop of teaching students to develop new listening habits and helping them unlearn old listening habits that have come to feel “natural.”

Understanding how bodies can be taught to unlearn requires some knowledge of how sensory habits are formed in the first place. Though the ways that we engage with the world through our senses may seem like a strictly biological matter, sensory interactions are learned and refined through experience. As Henri Bergson writes, “[O]ur senses require education” (48). Without our gaining bodily knowledge of how the senses work in different contexts, life would be utterly chaotic. Every interaction with the world would be unexpected, confusing, and potentially dangerous without prior knowledge—imagine if your body never remembered how it feels to touch a hot stove. Luckily, bodies have a tremendous capacity for memory because they do learn from past sensory interactions. Bergson asserts that “bodily memory” is “made up of the sum of the sensori-motor systems organized by habit” (152). Bodily memory is reinforced during every single sensory encounter one experiences. After enough sensory experiences, bodies acquire knowledge about how these encounters affect them, which informs how they will respond to new sensory experiences. In this sense, the very act of living—of being a body interacting with the world—is an ongoing series of educational events.

However, the accumulation or quantity of experiences is not the only factor

involved in bodily learning. As Dewey suggests, the *quality* of experiences also facilitates or stunts growth and learning in subsequent experiences (*Experience* 47). For example, if a body is persistently assaulted with the same kinds of low-quality experiences, its sensory interactions with the world will become blunted. During our interview, Glennie expressed concern about the low-quality experiences that are associated with sonic excess. Because I found her description so relevant to the topic at hand, I include a lengthy segment here:

It is just a case of seeing our senses as food. You know, we wouldn't eat 24/7 and expect to be healthy [. . .] If we put something in our mouth every single second of the day we would be extremely ill. And yet, we're prepared to do that with sound. We're prepared to feed our system with sound upon sound upon sound upon sound. If we sit on an airplane, we have a huge amount of vibration coming from the engine of an airplane. What do we do? We try to cancel that out by putting something in our ears, and listening to music or watching a movie or whatever. So that there is more sound. And there are other announcements and distractions on the plane, which is more sound. And it just sort of clumps itself up just like that. And you know in a way the jet lag thing, I wonder if it's not so much based on the time differences and all that kind of thing but really just based on the huge overload to our senses that we have, that we feel we have to have. So, you know, it's the same with what we see. It's the same with what we smell, but I think we're much more choosy with how we use our sense of smell. We're slightly more choosy with our sense of taste. But yet with our sense of hearing, and the sound sense, it's making no sense, because it just seems to be on overload.

Glennie emphasizes that the accumulation of low-quality experiences, or experiences that do not result in learning or growth, dull one's conscious sensory awareness. Through repetition, these experiences train bodies to become numb—to tune out—and eventually, desensitization to particular sonic stimuli becomes the norm. As Glennie points out, most listeners' reaction to overstimulation from the sonic environment is to ignore it by streaming more sound through their ears. Her example highlights how bodily experiences with sound can lead to the formation of specific listening habits. In this case, a bombardment of environmental sound results in the kinds of low-quality experiences that encourage ear-centric listening.

Throughout the interview Glennie implied that the best way to unlearn sensory numbness or change the listening habits that have resulted from sonic overstimulation is to expose the body to a range of diverse sensory experiences. For instance, she speaks of her own listening training as a kind of restrictive diet: "What I am aware of is making sure that my sort of daily sound diet, as it were—that there is a huge amount of time where there is no sound. Everything that doesn't exist—but I mean consciously, you know, switching the TV off and just sitting for a few moments with nothing." By spending long periods of time in low-noise environments, Glennie claims that her body will be more sensitive to sound in other environments. In contrast, another method Glennie employs to heighten her sensory awareness is to

experience as many different kinds of sounds as possible. She explains that she makes “a point of trying to get a range of frequencies” in her “sound diet.” One effective way of doing this is to seek out “organic sounds, sound that can reproduce itself, or sounds that are just observed from the surroundings,” as opposed to recorded sound (Personal interview).

Because Glennie considers one’s “sound diet” to be an integral part of cultivating critical listening habits, she expressed disappointment about many listeners’ obliviousness to and evasion of “organic sounds.” She explains that “a lot of the younger generation because they’ve been brought up with technology” tend to be unaware of or underexposed to a full range of organic sounds (Personal interview). In other words, because more and more people are plugged into their iPods, smartphones, and electronic devices, they regularly consume reproduced sounds that have frequencies that vary in the higher register but not much in the lower register. Sound becomes tactile, or felt in parts of the body other than the ears, in the lower register (below 20 Hz), thus exposure to mostly high-frequency sounds conditions listeners to depend on their ears.<sup>7</sup> A high-frequency sound diet that consists mainly of prerecorded sound trains people to ignore the fuller sensory experience of sound, or how the rest of the body experiences and engages with sound.<sup>8</sup>

The main challenge of multimodal listening instruction, as I see it, is for teachers to design the kinds of productive, *quality* sonic experiences that will continue to build on and expand students’ past sonic experiences. For multimodal listening instruction to be effective, teachers need to resensitize students who are most likely unaware of their desensitization from repetitive, low-quality sonic interactions. As Dewey writes, “Wholly independent of desire or intent, every experience lives on in further experiences. Hence the central problem of an education based upon experience is to select the kind of present experiences that live fruitfully and creatively in subsequent experiences” (*Experience* 27–28). Teachers of multimodal listening must design assignments that encourage the kind of heightened awareness that enables students to learn and grow with every new sonic experience. To develop as listeners, students need to unlearn the listening practices that they have become accustomed to in their everyday lives. We need to find ways to defamiliarize these habitual practices—to make them strange again.

In a way, then, multimodal listening pedagogy is similar to the defamiliarization strategies that are used in textual composition. As Don Bialostosky writes of Viktor Shklovsky, who coined the term *defamiliarization*, “He saw poetic devices as counteracting the tendency of our minds to get used to everything, including ways of speaking and writing, and no longer to notice anything—a condition of deadened perception and response that produces dead conventional language.” In order to defamiliarize, to help reinvigorate readers, poets had to come up with innovative ways to break language conventions, or to use language in an unexpected manner.

Bialostosky continues, “[P]oets had to keep finding new ways to make their language strange, to make it unfamiliar and therefore noticeable.” Just as poets and writers use defamiliarization techniques to heighten readers’ awareness of language, teachers of multimodal listening practices must design opportunities and assignments that give listeners a chance to experience sound in new and surprising ways. The heightened awareness that students gain from multimodal listening practices can help them become more thoughtful and sensitive consumers and composers of sound in both digital and nondigital environments.

### MULTIMODAL LISTENING AND MULTIMODAL COMPOSING

Drawing from Glennie’s approach to listening, I next outline four ways that multimodal composition pedagogy can benefit from multimodal listening practices. Before elaborating on how multimodal listening practices expand and enrich students’ composing practices, though, I want to briefly consider why it is necessary to supplement the kinds of sound and listening projects that are already well-known features of many multimodal composition curricula. Podcasts, voice-overs, and audio essays are among the most familiar assignments that deal specifically with sound in the multimodal composition classroom.<sup>9</sup> Although I find value in such projects and continue to use versions of them in my own classroom, the listening and sonic composing practices that they require are limiting in a number of ways. For example, composing a podcast usually involves writing a script and recording narrative content—sometimes incorporating music or sound effects—using audio editing software. The process of composing a podcast is quite similar to writing a textual essay. Consider, for instance, the process of composing with sound that Cynthia Selfe, Stephanie Owen Fleischer, and Susan Wright identify in “Words, Audio, and Video”: “thinking about purpose, audience, and form,” “planning and brainstorming various concepts for an audio essay in a word-processing program,” “trying out different approaches to arranging and organizing audio material in various versions/drafts of essay,” and “peer review of—and response to—drafts” (15). The authors make specific connections between sonic composing and textual composing. Indeed, highlighting the similarities between sound and text is a common move in multimodal composition scholarship. As Bump Halbritter writes, “In soundful compositions, sound is text” (216).

I agree that it is important to stress the similarities between composing with sound and composing with alphabetic text in order to help students see how the textual composing techniques they are already familiar with relate to other modes as well. However, sound is also a distinct mode with distinct affordances, and it is rarely treated as such in multimodal composition. When the affordances of sound are discussed in scholarship about podcasts and other audio composing genres, sound’s most celebrated affordance tends to be its ability to enhance narrative meaning and

content. For instance, in “The Movement of Air, the Breath of Meaning,” an excellent overview of the history of aural composing modalities (speech, music, and sound), Cynthia Selfe notes that in the past several decades, “compositionists have continued to experiment with assignments that encouraged students to create meaning in and through audio compositions” (640). Although sound is portrayed as distinct from text in multimodal composition scholarship, it also seems to serve the same purpose as text: to heighten or convey meaning. By highlighting sound as an exclusively semiotic resource in multimodal composing assignments, students miss out on considering how the embodied and contextual aspects of sonic experience—which play a major role in shaping a sonic composition—figure into the sonic composing process. In short, assignments that treat sound as text end up diminishing the full range of the compositional and rhetorical affordances of sound in a composing context.

Another problematic feature of sound-as-text multimodal composing assignments is that they rarely require students to reflect on their *embodied listening experiences*. The teaching of listening as a practice has not yet been discussed substantively in multimodal composition scholarship on sound.<sup>10</sup> Taking listening for granted as something that students just “do” when composing with sound is a problematic notion because it perpetuates the idea that listening is a natural (as opposed to learned) act, which implies that everybody (every body) can hear the sounds being composed. These kinds of assignments are ear-centric in that they do not account for an embodied listening audience—they do not ask students to consider their own or others’ bodily limitations and capacities.

Of course there are exceptions and nuances in multimodal composition assignments on sound. Most notably, Michelle Comstock and Mary Hocks’s “Voice in the Cultural Soundscape” and Kati Fargo Ahern’s “Tuning the Sonic Playing Field” offer some astute observations and suggestions about listening as a practice. I also find Jody Shipka’s theory of “multimodal soundness,” which “*resists attempts to bracket off the individual senses* and the uptake of required/assigned semiotic resources,” to be a fresh take on sound in multimodal composition pedagogy (“Sound” 371; emphasis added). Here, however, I have tried to point out some characteristics of sonic composing assignments as a genre. In general, I have come across very few sound-based assignments that ask students to take their own bodies and senses into account; or to consider the limitations of a composing context; or to reflect on their own listening practices.

Alongside assignments that treat sound as text, then, the multimodal composition classroom is in need of listening practices that can deepen students’ knowledge about the unique ways that sound works as a mode of composition and an affective force. Next I illustrate some of the ways that multimodal listening practices can respond to this need. The examples I provide are designed primarily for the multimodal composition classroom, but my pedagogical suggestions are intended to supply a generative

foundation for further discussions about the teaching and practice of listening. I want to encourage readers from any background—rhetoric and composition, professional and technical writing, creative writing, literary studies—to adapt and experiment with these ideas to suit their own pedagogical needs and classroom situations.

*1. Multimodal listening practices enable composers to cultivate experiential knowledge that can help them make strategic decisions about how to design sonic compositions for embodied audiences.*

Attending to how the body figures into sonic interactions via multimodal listening can help composers take advantage of sound's affective possibilities. Though it is a standard practice for composers to think about how audiences will intellectually and emotionally respond to their compositions, multimodal listening requires composers to consider how their sonic compositions will affect *embodied* audiences. By "embodied," I am not referring to the representational categories (race, gender, class, disability, sexual orientation) that have become staples of discussions of embodiment in the humanities and social sciences, but to the fact that an embodied audience consists of sensing, nerve-filled, responsive bodies.<sup>11</sup> If composers can develop a critical awareness of how different sounds affect their own bodies via multimodal listening, they will be more attuned to how sound works as an affective mode, and to how their own sonic compositions might affect audiences.

I am not suggesting that there is a one-to-one correlation between a particular sound and a particular bodily affect. A sound does not necessarily affect all bodies in the same way every time (or at all), and not all bodies experience sound similarly either. Rather, the point of teaching students to attend to how sound affects bodies is to make them more aware of the various affective possibilities and limitations of sonic interactions. In order to treat sound as a complex, dynamic mode of composition, it is necessary to teach students how the affects of sound may vary from person to person, context to context. Multimodal listening practices can be used to highlight the fact that bodies are not uniform—that the audiences students compose for have a range of bodily capacities and needs that will affect how they respond to sound. Experiencing and experimenting with sounds and their affective potential can help composers address questions such as these: What kind of sound would be most persuasive—most effective *and* affective—given the embodied audience I am composing for? How are the technologies I am using to compose with enabling or preventing me from manipulating sound to achieve these desired effects and affects? How will the context I am composing in affect the sounds I am working with or the embodied audience's response to these sounds? What kinds of embodied listeners would be most affected or unaffected by my sonic composition?

To engage with such questions, teachers might create assignments that ask students to design sonic compositions that would allow audiences with different preferences or bodily capacities to interact with their work. For example, in a more

advanced multimodal composition course, students might be asked to create an audio narrative that includes visual and textual options that could be turned on or off by the user—this would be especially ideal for deaf and hard-of-hearing audiences. This composition might include a textual narrative that scrolls below the audio file; brief descriptions of the nonverbal sounds that could appear on the screen, perhaps in colors that correspond to the intensity of the sound, and then fade away. Such a design would give users more flexibility and more ways to engage with this sonic composition via multiple sensory and communicative modes.<sup>12</sup>

As McCarthy and Wright note, “[I]t is only by seeing technology as participating in felt experience that we can understand the fullness of its potential” (x). By attending to their bodily experiences with sound in digital composing environments, composers can develop a sharper sense of the affordances of sound as a compositional medium. Additionally, multimodal listening practices can expand the ways that sensing bodies are figured into the composing process. The awareness of sensing bodies that multimodal listening encourages provides an opportunity for composers to design sonic compositions that can be interacted with and experienced in multiple ways instead of only through the ears. To my mind, multimodal listening practices serve as a way to encourage composers to experiment with *universal design*—to come up with creative strategies for developing sonic compositions that offer more inclusive experiences (Dolmage and Lewiecki-Wilson).<sup>13</sup>

2. *Multimodal listening practices enable composers to develop a critical understanding of how sound works in particular contexts.*

Ear-centric listening practices often focus narrowly on the meaning and interpretation of audible words, but multimodal listening practices take into account the dynamics of the sonic composition as a whole. This holistic approach to sonic composition requires composers to consider how sound works with and against other elements in a multimodal composition (images, video, text), as well how those elements and the composing environment in general will affect the audience’s experience.<sup>14</sup> If sonic composing and listening practices are limited to the screen of a digital audio editor (or any one context), then listener-composers are not experiencing a full enough range of sonic environments to get a sense of how different materials and contexts shape sonic experiences. Isolating multimodal listening and composing practices to a singular sonic environment not only gives students limited knowledge about the affordances of sonic contexts, it sets up a disconnection between sonic interactions in composing environments and sonic interactions in students’ lives outside of the classroom. A multimodal listening pedagogy provides opportunities for students to attend to how sound is working in a range of environments, thus making listening instruction a way for students to better understand the relationship between the sonic texts they create and interact with in the classroom and the sonic spaces they move through every day.



One way that I try to expand students' engagement with sound in my own classroom is by having them compose soundscapes. For instance, in the Sounding Pittsburgh project, I asked students to work in teams to compose a digital soundscape of the Pittsburgh neighborhood of their choice. Teams conducted field research in their neighborhoods by listening, taking notes, and capturing sounds with digital audio recorders and smartphones. Then they assessed their large collection of sonic material and chose the sounds that they felt best represented their neighborhood. Once we synthesized everyone's material to compose a collaborative soundscape of Pittsburgh, we talked about what information or meaning could be gleaned from the sounds—what stories the sounds told about Pittsburgh or particular neighborhoods. Students also compared their embodied listening experiences in the city to their experiences with our digital sonic representation of the city. They noted that their immersive and ephemeral encounters with sound in Pittsburgh neighborhoods were more intense, affective, and dynamic compared to experiencing those sounds through tiny computer speakers. At the same time, the digital soundscape offered a more controlled listening experience; the ability to listen repeatedly in this setting made it easier to analyze and find patterns among the sounds. Having students return to a digital environment *after* their sonic encounters in Pittsburgh seemed to bring the constraints and possibilities of sound in each setting into sharp relief. As I learned from this pedagogical experiment, teaching students about the richness and complexity of sonic experience and multimodality requires moving beyond exclusively digital contexts to include a wider variety of listening experiences.

*3. Multimodal listening is an inquiry-based practice that encourages composers to explore and experiment with all of the available effects, affects, and meanings of sound in different environments.*

Multimodal listening practices require composers to approach sound not as static and stable, but as a highly contextual experience that changes from one setting to the next. Multimodal listening practices encourage students to consider the ever-changing possibilities and limitations of sound rather than coming to hasty conclusions about what a sound means or represents. The key to multimodal listening is sonic play and experimentation. Instead of seeking specific sounds to achieve specific affects (that is, searching for and downloading a particular sound effect and immediately inserting it into a composition), multimodal listening practices involve experiencing and tinkering with different versions of the same sound before determining which one is most effective or affective. Teachers might also prompt students to explore the same sounds in different settings. Rather than ask students to make a sonic composition that will be posted on a blog or website, for instance, teachers could ask them to design a single sonic composition that will be performed in two places. Comparing the two performances would make the significance of the contextual, ecological aspects of the

sonic composition more apparent. Through discovery and play, students will have a better sense of the available sonic possibilities and limitations in a specific context.

I want to be clear that my emphasis on the body, or situated embodied experience, as a mode of inquiry in multimodal listening practices does not make this kind of training any less intellectual than listening practices that focus solely on the meaning of sound or alphabetic language. Instead, I understand multimodal listening to be what Debra Hawhee refers to as “a mind-body complex.” In her account of the linked practices of rhetoric and athletics in ancient Greece, Hawhee writes, “[R]hetoric’s relation to athletics hinges on a kind of knowledge production that occurs on the level of the body [. . .] This is not to say that ‘mind,’ or thought, is not important, but rather that it is part of a complex—a mind-body complex—that learns and moves in response to a situation rather than through the application of abstract principles” (10). Although Hawhee discusses the role of the body in relation to ancient rhetorical practices, her comments about bodily pedagogies apply to the kind of multimodal listening training that I have been describing. Unlike ear-centric listening practices that often depend on the interpretation of abstract knowledge (words, ideas, and so on), the cultivation of multimodal listening practices “hinges on a kind of knowledge production that occurs on the level of the body” (10). Multimodal listening requires undoing ear-centric habits and developing a holistic approach to sonic encounters through situated, embodied experience.

The bodily pedagogy that Hawhee describes also resonates powerfully with multimodal listening in that it does not have a fixed aim or goal. She writes, “[T]he ‘end result’ of such pedagogy is not a finished product, but a dispositional capacity for iteration—the ability to continually repeat, transform, and respond” (151). Like the sophisticated pedagogy Hawhee discusses, multimodal listening training is not based on a set formula or universal goal. Rather, through repetitive practice, students of multimodal listening learn to attend to the bodily and contextual aspects of sonic encounters. Eventually, they will be able to translate that acute attention to bodily interactions with sound in a range of environments and situations. In other words, the multimodal listening habits that students cultivate are meant to provide a foundation for helping them respond to, explore, and compose in different kinds of sonic environments. Multimodal listening is not a practice that requires mastering a particular corpus of knowledge; it is an ongoing, experiential, inquiry-based practice.

*4. Multimodal listening practices enable composers to approach sonic composition as a means of designing holistic experiences.*

As Graham Pullin writes, “the best way to design the experience is to experience the design” (139). Multimodal listening encourages composers to approach their own sonic compositions not as mere texts, but as total sensory experiences. By attending to one’s embodied reaction to sound, to the context in which a sound is being experienced, and to how sound is working with or against other modes and

materials, composers can make more informed decisions about how to ultimately design their sonic compositions to create holistic multimodal experiences.

Learning to create holistic multimodal experiences is important because heightening users' sensory experiences is a fundamental part of contemporary design, and sound is playing an increasingly significant role. As Eefje Cleophas and Karin Bijsterveld note, "The notion that sound 'is well known to enhance or detract from our pleasure in possessing or using a product' has thus been reinforced by an emerging and growing network of manufacturers, designers, testing companies, marketers, and academics who reciprocally spread the world of sensorial branding and design" (119). One of the primary goals for designers of everything from baseball stadiums to museums to video games is to create pleasurable embodied experiences; designers have to think through the overall experience of a product or activity or environment—its look, sound, taste, touch, smell. Immersive sensory experiences are highly esthetic, as Dewey might put it, and they tend to be more meaningful and memorable than low-quality experiences. In this sense, teaching students to design holistic experiences via multimodal listening practices can help them create more effective and engaging sonic compositions, as well as deepen their understanding of sound as an integral part of the texts, products, and environments that they interact with every day.

Digital composing environments do have limitations in terms of creating immersive sonic experiences, however. For instance, they cannot replicate the three-dimensional experience of sound, or the full range of different frequencies that can be felt in the body. I see these limitations as opportunities for teachers of multimodal composition to invite students to compose or perform their sonic compositions outside of digital contexts. For example, if a student wants to use reverberance to create a rhetorical effect, I might encourage her to perform her sonic composition live in a space that makes that possible (a large church or auditorium, for instance), thus taking full advantage of the visual and spatial elements that can shape the experience of sound in a way that would not be possible in a digital sound environment. Or, consider a sonic project about the importance of bass in hip-hop culture. The felt experience of bass is part of what makes it a compelling and meaningful sound. Because it is not yet possible in most digital sound environments for listeners to experience the kinds of low-frequency sounds that can be felt in the body,<sup>15</sup> this project might best be executed in a space where audiences can feel the bass for themselves (that is, a parking lot where the composer could incorporate the bass sounds from a car, or a space where loud speakers could blast felt vibrations). These are just a few of many possibilities for incorporating more experimental sonic composing experiences in the multimodal composition classroom. Regardless of the assignment, turning to nondigital sonic experiences and spaces is a great way to help students create multimodal compositions that engage audiences in more powerful, holistic, *embodied* ways.

## SOUNDING THE CALL

My hope is that multimodal listening pedagogy will lead to new, more experimental approaches to the teaching of listening and sonic composing in a range of contexts. As I have tried to illustrate, it is more productive to think of listening in terms of sensory possibilities than organ-specific binaries (that is, you either have the capacity to listen or you do not). The fact that bodies can be retrained to experience listening via multiple modes—that listening is an adaptable, dynamic practice that can be learned and unlearned—presents instructors with an exciting opportunity to explore how a wider range of listening practices and sonic experiences might inform their pedagogies. Multimodal listening practices can supplement listening practices that focus on the meaning and interpretation of sound by providing a way for students to experience and reflect on what it means to be an *embodied* listener, composer, thinker, and learner.

Multimodal listening pedagogy offers a way to teach students to be more capable and sensitive listeners during the production of multimodal compositions, and in their experiences with various sonic texts, products, and environments. This project is pedagogical, then, not only because it presents teaching applications for the classroom; it is also pedagogical in the sense that it proposes listening practices that can help anyone learn to be more thoughtful about sensory experiences and interactions in everyday life. In a culture where being plugged in to digital devices is a common occurrence, when so much of what we pay attention to is streaming through earbuds or flashing on screens, I am calling for a reeducation of our senses—a bodily retraining that can help us learn to become more open to the connections between sensory modes, materials, and environments. In addition to *listening in* to digital content, it is time that we learn to *listen up, out, through, and around*.

## NOTES

1. I would like to thank Kelly Ritter, Stephanie Kerschbaum, and Kyle Stedman for their excellent editorial feedback.

2. Nondiscursive sound has also been a salient topic in rhetoric and composition scholarship in the last several years. See, for example, *Currents in Electronic Literacy's* "Writing with Sound" issue, edited by Diane Davis, and *Harlot's* special issue on "Sonic Rhetorics," edited by myself and Jon Stone.

3. For more information on the New London Group, see Bill Cope and Mary Kalantzis's collection *Multiliteracies*.

4. I recognize that Dewey is a prolific theorist, and my use of his work, and even his scholarship on experience, in this essay is not meant to be comprehensive. Rather, I have chosen to focus on specific ideas from two of his key works on experience because these texts have productively informed my conception of multimodal listening pedagogy.

5. Throughout this essay, I use Dewey's original spelling of "esthetic," except in cases where I quote other authors who refer to Dewey's work and use the alternative spelling, "aesthetic."

6. The term *soundscape*, coined by Canadian scholar and composer R. Murray Schafer, refers to any acoustic environment (Schafer). In the late 1960s, Schafer formed a research group at Simon Fraser University called the World Soundscape Project, which initiated many of the first large-scale explorations of sonic environments and their effects on humans (World Soundscape).

7. As James Cowan writes, “Frequencies below 20 Hz are known as *infrasonic*. These frequencies, although not audible to most people, can be felt as vibrations. This is due to the fact that our internal organs resonate at frequencies between 5 and 15 Hz. Each physical entity has a resonance frequency associated with it, depending on its density. Exposure to sounds near the resonance frequency of a material causes it to vibrate more than it would when exposed to other frequencies” (5).

8. It is important to recognize that there are also high-frequency sounds in what Glennie refers to as “organic” sonic environments. For instance, many bird sounds are high frequency. It is not that high-frequency sounds are bad in and of themselves. Rather, Glennie is calling attention to the need for a range of sounds in listening training in order to keep listeners on their toes, so to speak. If one listens only to prerecorded bird sounds (what Glennie would call “inorganic” sounds), then those sounds would never change or fluctuate. Listening to bird sounds live, however, is more demanding because the sounds are not static. They change depending on the time of day, the spatial location of the birds and the listener, the environmental context, and so on.

9. Indeed, podcasts have received an especially significant amount of attention in pedagogical scholarship about sound. For example, among others, see Doug Dangler, Ben McCorkle, and Time Barrow’s “Expanding Composition Audiences with Podcasting”; Sean Zdenek’s “Accessing Podcasting”; Leigh Jones’s “Podcasting and Performativity”; and Jennifer Bowie’s “Rhetorical Roots and Media Future.”

10. Feminist rhetoric scholars have contributed a substantial amount of work on the teaching and practice of listening in recent years—mostly in relation to discursive sound such as audible speech (see Krista Ratcliffe’s *Rhetorical Listening* and Cheryl Glenn and Ratcliffe’s edited collection *Silence and Listening as Rhetorical Arts*). Giving similar attention to listening in relation to multimodal composition pedagogy would be a great step forward in terms of promoting more critical engagement with and production of nondiscursive sound in our classrooms.

11. I want to be clear that I am not suggesting that identity markers such as race and gender are somehow disconnected from the ways that people make meaning of sound; on the contrary, they are integral to the process of interpreting sound. Here, though, I have chosen to focus on affective, sensory experiences because they are so rarely mentioned in multimodal composition scholarship on sound.

12. Though this example is rather technical and may not be suited to all classroom levels, having students create sonic work that includes visual and textual options can be accomplished in a variety of digital and nondigital assignments. Regardless of the specific assignment, the key is to get students thinking about how an audience could engage with sonic work via multiple modes.

13. As Jay Dolmage and Cynthia Lewiecki-Wilson note, universal design is a concept that “holds that one should design spaces and learning environments for the broadest possible access” (26). Patricia Dunn’s *Talking, Sketching, Moving*, which also played a part in inspiring my multimodal listening pedagogy, provides another example of how the concept of universal design can be used to create more accessible and flexible opportunities in composition. Dunn proposes the use of multiple modes and pathways—talking, sketching, moving—in order to broaden writing instruction in ways that engage a more diverse range of learners. Multimodal listening pedagogy aspires to accomplish a similar goal in terms of listening and sonic composing practices.

14. Thomas Rickert’s “Music@Microsoft.Windows” offers an important perspective on sound as a part of an ecology. Rickert argues that it is necessary to develop an understanding of “the mutually conditioning (and not determining) confluence of sound, image, material environment, bodies, and mood” (“Music”). Rickert’s attention to how sound works with and against other sensory modes and materials in this article and in his most recent book, *Ambient Rhetoric*, resonates with my conception of multimodal listening practices.

15. It is likely that in the coming years, there will be a more pronounced emphasis on the tactile affordances of sound in audio technologies—particularly in relation to music and video games. For example, new headphones called Crushers use speaker technology to produce “vibrations that are perceived as powerful bass notes” via bone conduction (Furchgott). The goal of this device is to enable listeners to physically experience music through vibration.

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